

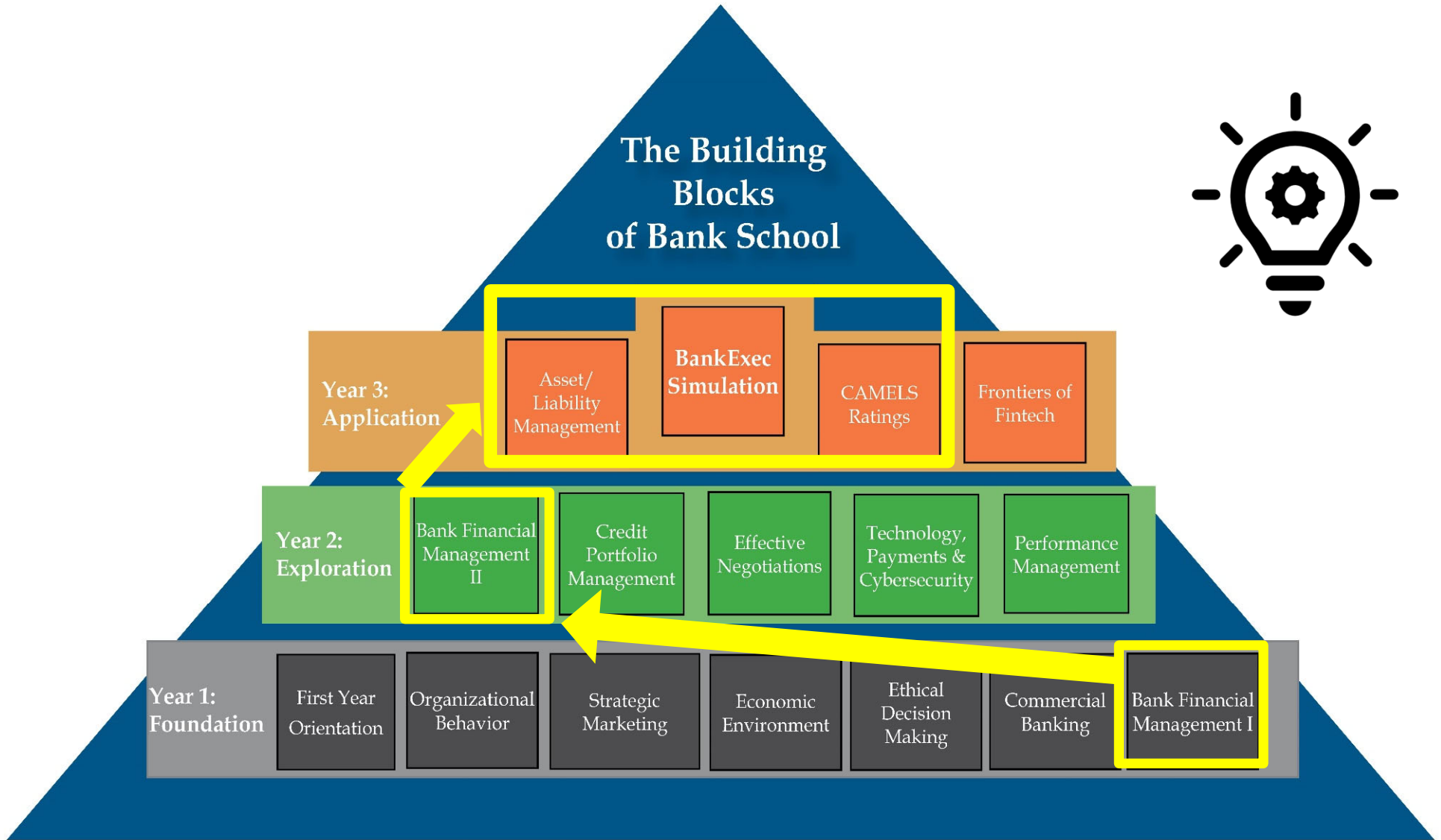
Bank Financial Management II

Asset Liability Management

Year 2

Brad E. Schwartz, CPA
President & COO
TowneBank

THE FINANCE JOURNEY



Class Overview

- Day 1 - Review Financial Statements / Ratios
- Day 2 – Profitability, Liquidity and Capital
- Day 3 - Interest Rate Risk & Reward
- Day 4 – TB ALCO Meeting
- Day 5 – Sandler O’Neill on Hedging and Strategy, Interest Rate Risk Management, Homework Review

Integrated BankExec Financial Reports

Our Goals

- A deeper understanding of bank financial statements & ratios
- An understanding of what drives bank financial performance and your role
- Understand what is ALCO Management
- **Tie all this knowledge together to improve your performance for BankExec Capstone**
- Help with your home study assignment

How Bank Exec Works

- How Bank Exec works:
 - Competitive marketplace
 - Everyone starts with same bank
 - Make 8-9 **RAPID** decisions on loan pricing, risk, deposit and funding strategy, marketing, capital activities
 - Model runs and determines ranking of banks in the market based on 10 factors that drive the closing stock price
 - Top stock price wins – EPS drives stock price

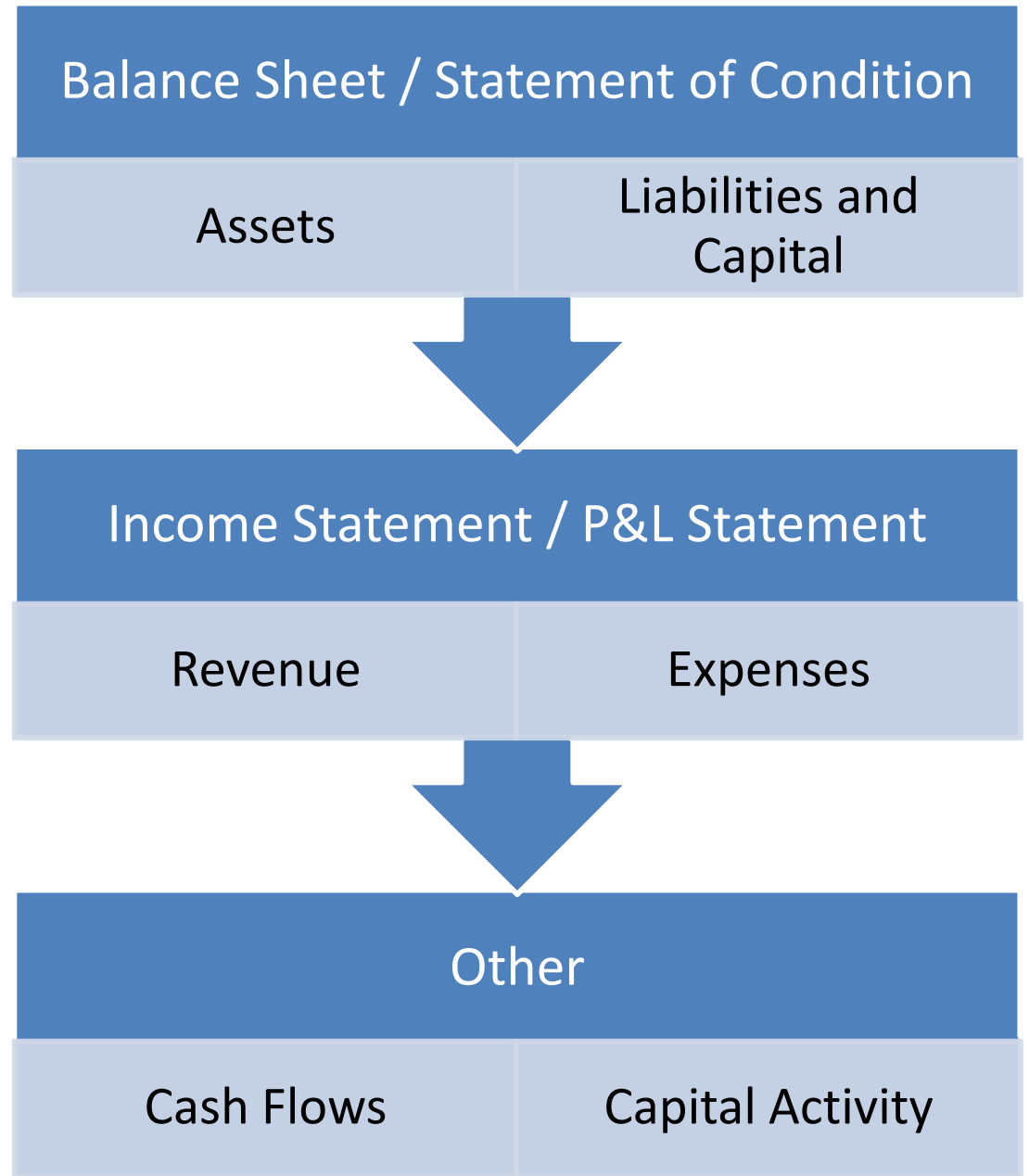
Home Study Assignment

- Interest Rate Risk and the financial impact from a changing rate environment
 - Answer basic financial questions
 - Understand risks in the balance sheet?
 - You make recommendations for the bank to improve their financial position
- Review further on Friday

Year 1 Recap

- Ratio Worksheet
 - ROA, ROE, EPS, P/E Ratio, Efficiency Ratios
 - Loan/Deposit, ALLL/Loans, 100/300 Ratios
 - Capital Leverage Ratio, Total Risk Based Capital
 - Asset Yield, Liability Cost, Net Interest Margin
- Financial Statements
 - Balance Sheet
 - Income Statement
- UBPR Ratio Highlights
- What if Growth Strategy

Bank Financial Statements (Annual & Quarterly Reports)



Financial Statement Overview

B00 -- Financial Reports, For Quarter Ending 12/31/21
Third Bank 2009

B01: Balance Sheet -- Page 2

B02: Income Statement -- Page 3

B05: Risk Management Summary -- Page 4

B06: Funds Management -- Page 5

B10: Security Maturities and Portfolio Activity -- Page 6

B12: Security Portfolio -- Page 7

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B22: Loan Profitability and Performance -- Page 9

B24: Loan Decisions -- Page 10

B40: Deposit Activity and Performance -- Page 11

B44: Deposit and Marketing Decisions -- Page 12

B64: Treasury Managment, Dividends and Forecast Earnings -- Page 13

C91: Bank Balance Sheets -- Page 14

C92: Income Statements -- Page 15

C93: Community Loan and Deposit Markets -- Page 16

C94: Community Bank Capital Activity -- Page 17

C95: Economic Charts -- Page 18

C96: Economic Reporter -- Page 19

```
----- Assets -----  
Cash Items  
Fed Funds Sold  
Securities  
  
Loans (Net)  
    Business  
    Real Estate  
    Consumer  
    Other  
    Loan Loss Reserve  
Premises  
Other Assets  
-----  
Total Assets
```

```
=== Liabilities and Equity ===  
Total Deposits  
    Checking Accounts  
    Savings Accounts  
    Time Accounts  
    Certificates of Deposit  
  
Borrowed Funds  
    Repurchase Agreements  
    Fed Funds Purchased  
FHLB Borrowing  
Other Liabilities  
Capital Notes  
  
Owners Equity  
-----  
Total Liab & Equity
```

Third Bank

Balance Sheet

Primary Earning Assets

- Short-term funds/FFS
- Securities/Investments
- Loans
 - Business/Commercial
 - Residential
 - Consumer
 - LESS Loan Loss Reserve (ALLL)

----- For Quarters Ending -----				
	12/31/21	9/30/21	6/30/21	3/31/21
===== Assets =====	=====	=====	=====	=====
Cash Items	49.695	49.616	49.108	46.083
Fed Funds Sold	8.911	55.247	103.423	104.537
Securities	24.687	24.751	24.793	34.823
Loans (Net)	680.210	646.999	628.500	591.517
Business	223.808	199.523	185.278	175.458
Real Estate	323.338	318.948	320.786	304.970
Consumer	139.934	135.063	128.785	117.064
Other	0	0	0	0
Loan Loss Reserve	-6.871	-6.535	-6.348	-5.975
Premises	15.504	15.492	15.484	15.479
Other Assets	40.048	40.397	41.369	39.980
-----	-----	-----	-----	-----
Total Assets	819.054	832.502	862.677	832.420
=== Liabilities and Equity ===	=====	=====	=====	=====
Total Deposits	719.843	734.188	763.936	734.556
Checking Accounts	233.925	227.735	215.481	200.037
Savings Accounts	246.924	270.451	304.883	291.049
Time Accounts	238.994	236.002	243.572	243.469
Certificates of Deposit	0	0	0	0
Borrowed Funds	0	0	0	0
Repurchase Agreements	0	0	0	0
Fed Funds Purchased	0	0	0	0
FHLB Borrowing	0	0	0	0
Other Liabilities	33.748	34.405	35.828	34.314
Capital Notes	0	0	0	0
Owners Equity	65.463	63.908	62.913	63.550
-----	-----	-----	-----	-----
Total Liab & Equity	819.054	832.502	862.677	832.420
===== Ratios (%) =====	=====	=====	=====	=====
Net Liquid Assets / Assets	1.09	6.64	11.99	13.76
Loans / Deposits	94.49	88.12	82.27	80.53
Non-Performing Loans / Loans	.61	.64	.67	.80
Charge-offs / Average Loans	.28	.36	.55	.64
Earning Asset / Total Assets	87.15	87.33	87.72	87.80
Core Deposits / Total Assets	87.89	88.19	88.55	88.24
Int Bear Liab / Total Assets	79.24	79.65	80.28	79.59
Borrowed Funds / Total Assets	0	0	0	0
Fed Funds Purch / Tot Capital	0	0	0	0
Owners Equity / Total Assets	7.99	7.68	7.29	7.63

Loans and Leases

- Key issues related to loan portfolios?
 - Asset (Credit) quality
 - Risk Ratings Systems
 - Allowance (reserve) for Loan and Lease Losses / CECL
 - Interest rate risk
 - Fixed rates, duration/maturity
 - Floating rates, indexes, floors
 - Hedging of risk
 - Concentration of credit
 - Mix of Loan Types
 - Sector 100/300 Ratios
 - Legal lending limits

Loan to Deposit Ratio

- Is a very simplistic liquidity measurement
- Demonstrates the level of deposits funding the loan portfolio
- A ratio too high (90-100%+) may impact liquidity but will lead to higher profitability
- A ratio too low also requires some attention and will usually have a negative impact on profitability

===== Ratios (%) =====	
Net Liquid Assets / Assets	1.09
Loans / Deposits	94.49
Non-Performing Loans / Loans	.61
Charge-offs / Average Loans	.28
Earning Asset / Total Assets	87.15
Core Deposits / Total Assets	87.89
Int Bear Liab / Total Assets	79.24
Borrowed Funds / Total Assets	0
Fed Funds Purch / Tot Capital	0
Owners Equity / Total Assets	7.99

Allowance for Loan & Lease Losses

- ALLL - Also called Reserve for Loan Losses
- Deducted from loans to compute “net loans”
- Calculation:

Beginning Balance ALLL

Plus: Provision for loan losses (earnings impact)

Less: Loan charge-offs

Plus: Recoveries of previously charged off loans

= Ending Balance ALLL

Provision Expense was a reversal in 2021 for most – added to earnings

Allowance for Loan Losses

- 3 Components of the incurred loss model:
 - Current Loans x PAST ANNUAL losses (3-5 year time horizon)
 - Non-performing loans at actual expected loss
 - Environmental factors/trends
- Calculation:
 - Allowance for loan losses / Gross Loans
 - Adding \$ to ALLL typically reduces earnings

Current Expected Credit Loss Model (CECL)

- New accounting standard for ALLL
 - Effective 2020 larger cap banks (Covid-19 optional)
- Forward looking vs. backward looking
- Life of Loan losses booked at time loan booked
 - Long-term loans and pricing?
 - Overall lending environment for higher risk credits
- Significant data requirements
- Modeling system requirements

Loan Portfolio Dynamics

\$

	Average Balance	Income			Expenses				Net Earnings
		Interest Income	Fees	Total	Salary & Ben.	Adver. & Prom.	Charge- Offs	Total	
Business Credit Lines	142.5	2.786	.810	3.596	.185	.013	.176	.373	3.223
Business Term Loans	69.2	1.560	.139	1.699	.093	.006	.029	.129	1.570
Total Business	211.7	4.346	.949	5.295	.278	.019	.205	.501	4.793
Commercial Real Estate	191.6	3.499	.183	3.682	.175	.006	.095	.276	3.406
Residential Mortgage (FR)	125.1	1.620	.259	1.879	.097	.006	.074	.177	1.703
Total Real Estate	316.7	5.119	.442	5.561	.272	.013	.169	.453	5.108
Installment Loans	137.5	2.434	0	2.434	.209	.006	.082	.297	2.137
Total Consumer	137.5	2.434	0	2.434	.209	.006	.082	.297	2.137
Total Loans	665.9	11.899	1.391	13.290	.759	.038	.455	1.252	12.038

%

	Percent of Average Balance, Annualized					% of Ending Balance			Change in Balance, Post Sales
	Interest Income	Total Income	Charge- offs	Total Expense	Net Earnings	Past-Due Loans	Non- Accrual	Total Non-Perf	
Business Credit Lines	7.82%	10.10%	.49%	1.05%	9.05%	.26%	.15%	.41%	19.12%
Business Term Loans	9.02%	9.82%	.17%	.74%	9.08%	.78%	.47%	1.25%	-.83%
Total Business	8.21%	10.01%	.39%	.95%	9.06%	.42%	.25%	.67%	12.17%
Commercial Real Estate	7.31%	7.69%	.20%	.58%	7.11%	.35%	.05%	.41%	1.03%
Residential Mortgage (FR)	5.18%	6.01%	.24%	.57%	5.44%	.81%	.06%	.87%	9.49%
Total Real Estate	6.47%	7.02%	.21%	.57%	6.45%	.54%	.05%	.59%	4.29%
Installment Loans	7.08%	7.08%	.24%	.86%	6.22%	.49%	.06%	.55%	3.61%
Total Consumer	7.08%	7.08%	.24%	.86%	6.22%	.49%	.06%	.55%	3.61%
Total Loans	7.15%	7.98%	.27%	.75%	7.23%	.49%	.12%	.61%	6.58%

Bank Investments

- What are the purposes of bank investment portfolios?
 - Liquidity
 - Generate Income
 - Satisfy Pledging requirements
 - Support Interest rate risk management

Bank Investments

- Bank investment portfolios are usually made up of bonds and debt instruments
- Bank regulations restrict the ability of banks to own equities
 - Exceptions: Required holdings of FRB stock, FHLB stock, Community Bankers Bank stock
 - Bank Holding Companies may hold equities

Types of Bank Investments

- U.S. Treasury Securities – Risk Free Rate
 - Full faith and credit of U.S. Government
 - Bills = 4,8,13,26 and 52 week maturity/discounted
 - Notes = 2-10 year maturity
 - Bonds = 30 year maturity
- Government Agency Securities
 - Full faith and credit of U.S. Government
 - Examples:
 - Government National Mortgage Association (GNMA)
 - Small Business Administration (SBA)

Types of Bank Investments

- Government Sponsored Enterprises
 - Not the full faith and credit of the U.S. Government but historically to be of high credit quality
 - Debt instruments, Mortgage-Backed Securities
- Examples:
 - Federal National Mortgage Assoc. (Fannie Mae)
 - Federal Home Loan Mortgage Corp. (Freddie Mac)
 - Federal Home Loan Banks (FHLB)
 - Federal Farm Credit Bureau (FFCB)

Types of Bank Investments

- Municipal Bonds
 - Bonds issued by state and local government bodies
 - General Obligation vs. Revenue Bonds
 - Yield defined as TE = Tax Equivalent
- Corporate Bonds
 - Bonds issued by corporations
- IDA/IDB Authorities Bonds
 - Project specific debt
- Other Banks Subordinated Debt

What Drives the Return on Bonds?

- Interest rate/yield based on purchase
- Predictability / timing of payments
 - Cash Flow
 - Prepayment risk
 - Call risk
- Credit risk
 - Default risk/creditworthiness of borrower
 - Collateral
- Liquidity /ability to sell in efficient market

Price and Duration

- Investment theory tells us that the value of a fixed-income investment is the best rate that reflects the sum of all of its cash flows discounted at an interest rate inherent investment risk.
- Duration measures the weighted average of the present value of the cash flows to calculate the period (number of years) it takes to recover the cash flows of a bond.

Calculating Value and Duration

$$\text{Bond Price} = \sum_{t=1}^N \frac{\text{CPN}_t}{\{1 + \text{YTM}_t\}^t} + \frac{P_n}{\{1 + \text{YTM}_n\}^n}$$

Definitions:

CPN = coupon payment

P = principal payment

YTM = yield to maturity

n = number of compounding periods

t = time period

Coupon Cash Flows	Principal Repayment
----------------------	------------------------

$$\text{Macaulay Duration} = \sum_{t=1}^n \frac{(\text{PV})(\text{CF}_t) \times t}{\text{Market Price of Bond}}$$

Definitions:

(PV)(CF_t) = present value of coupon at period t

t = time to each cash flow (in years)

n = number of periods to maturity

Basic Bond Math

- \$1,000 Bond, 3-year maturity, 3 annual payments, 10% coupon, market rate at 7% = what is price and duration?

$$\begin{aligned}\text{Market Price} &= \$100/(1.07)^1 + \$100/(1.07)^2 \\ &\quad + \$1100/(1.07)^3 \\ &= \$93.46 + \$87.34 + \$897.93 \\ &= \mathbf{\$1,078.73}\end{aligned}$$

$$\begin{aligned}\text{Macaulay Duration} &= (1 \times \$93.46 / \$1,078.73) \\ &\quad + (2 \times \$87.34 / \$1,078.73) \\ &\quad + (3 \times \$897.93 / \$1,078.73) \\ &= \mathbf{2.7458}\end{aligned}$$

*Bond
value
stated at
1.079*

Key Issues - Bonds

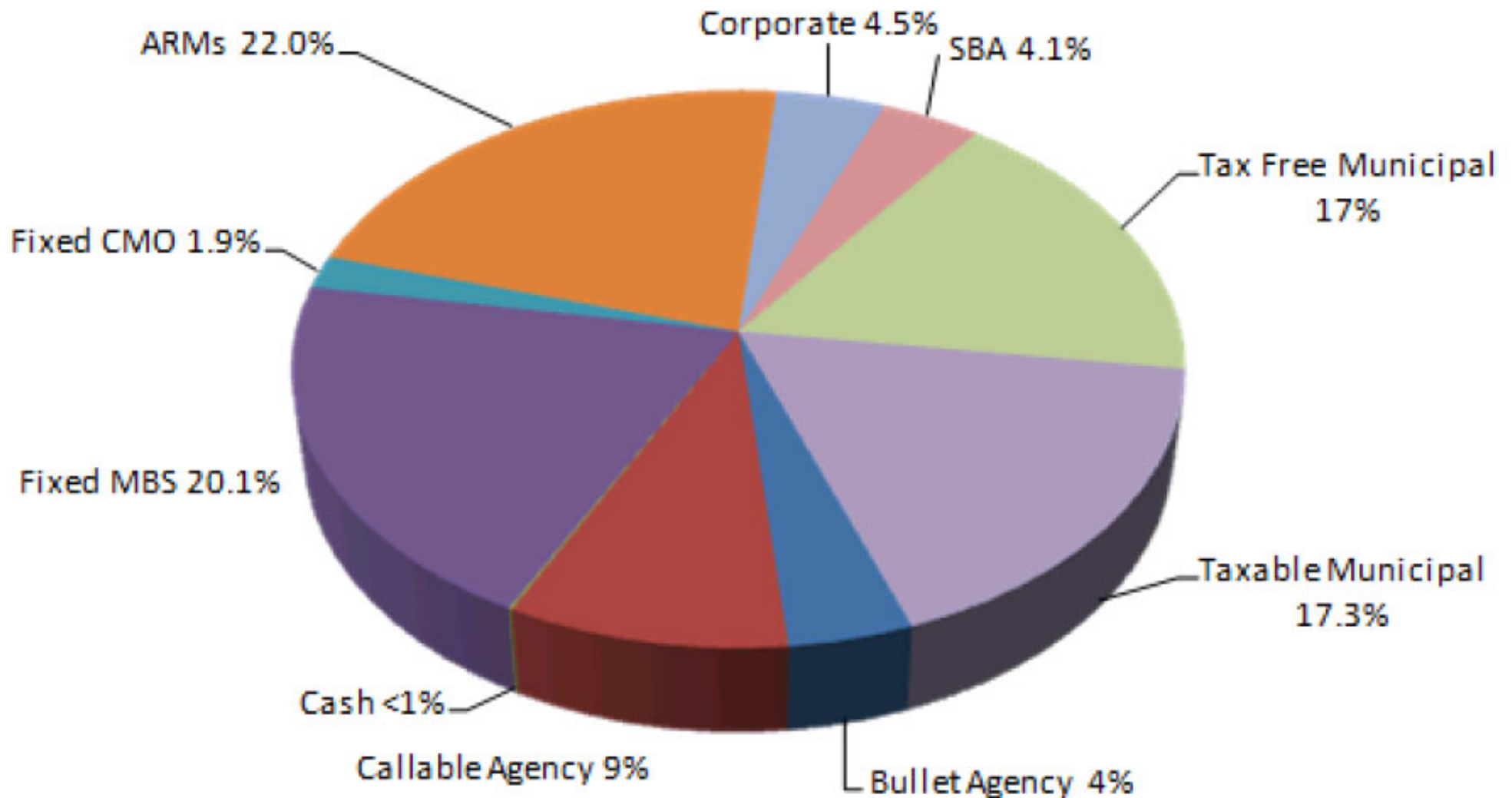
- Accounting:
 - Balance Sheet Classification
 - Accounting for purchase discounts and premiums
 - Impairment (OTTI)
- Regulatory
 - Ratings Agencies cannot be relied upon
 - Each bank must underwrite and monitor Municipal and Corporate bonds

Balance Sheet Classification

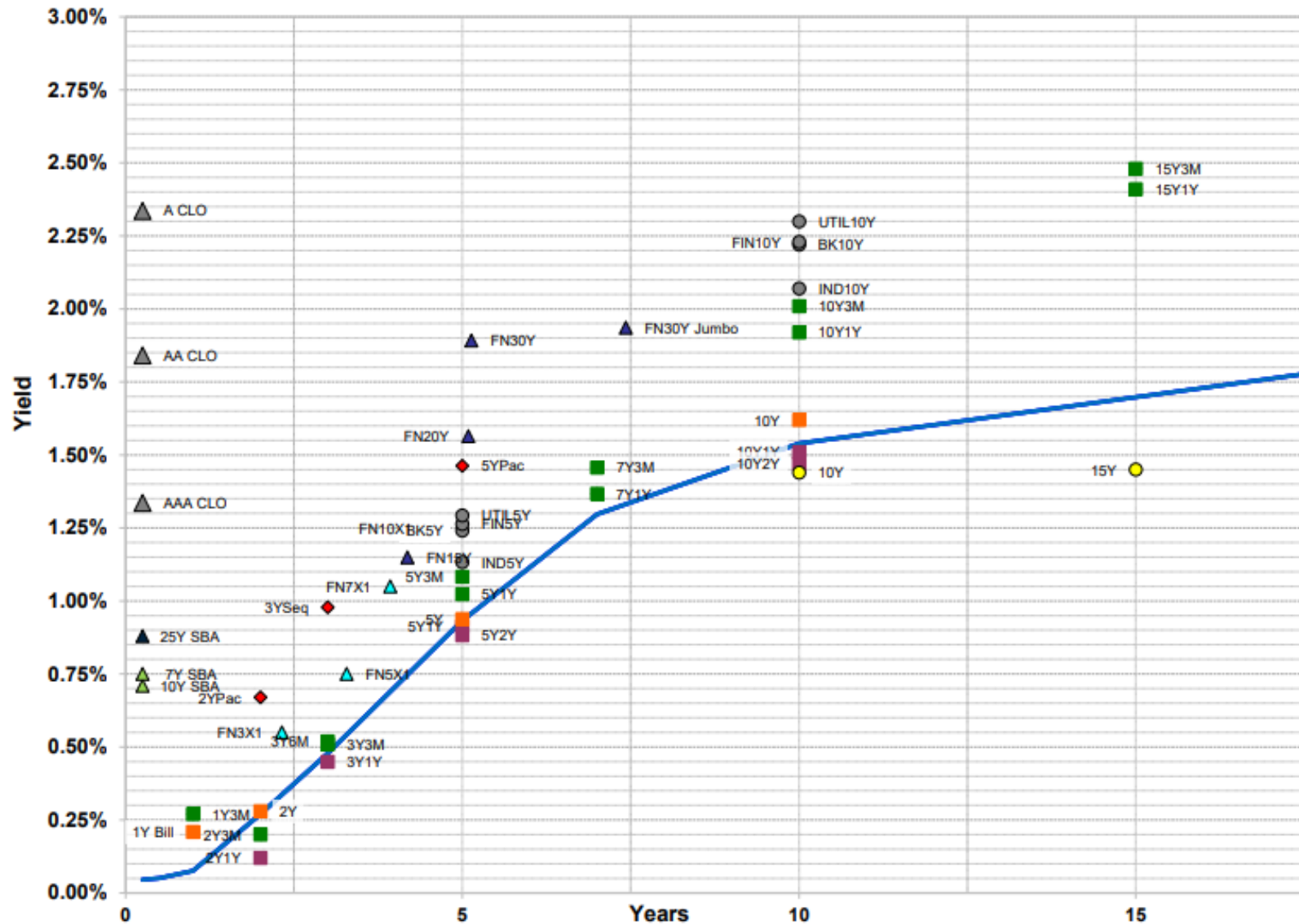
- Held to Maturity (HTM)
 - Changes in value do not impact equity or earnings
 - Cannot use for liquidity, i.e. sell while held
- Available for Sale (AFS)
 - Changes in value Impact equity but not earnings
 - _____impact in rising rate environment
 - _____impact in declining rate environment
- Trading
 - Changes in value impact equity via earnings, MTM

Sample Bank Portfolio

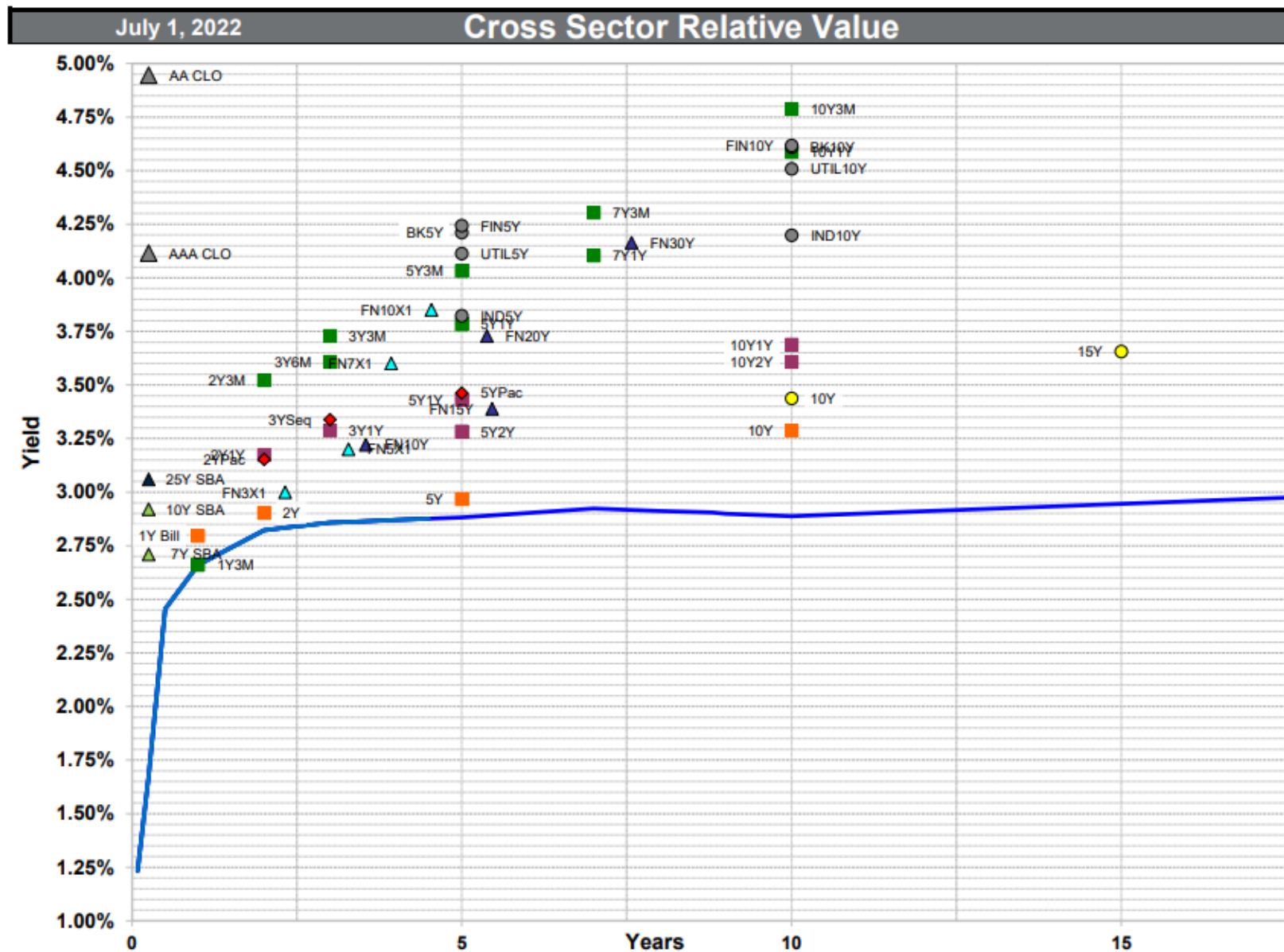
Sector Distribution



June 25, 2021 Cross Sector Relative Value























Investment Options - July 2022



Investment Options – July 2022

AGENCY		Spread	YTM	Maturity
BERMUDA	1Y3M	0	2.82%	1
	2Y3M	70	3.52%	2
	3Y3M	87	3.86%	3
	3Y6M	75	3.74%	3
	5Y3M	115	4.03%	5
	5Y1Y	90	3.78%	5
	7Y3M	138	4.42%	7
	7Y1Y	118	4.22%	7
	10Y3M	190	4.79%	10
	10Y1Y	170	4.59%	10
EUROPEAN	15Y3M	228	5.17%	15
	15Y1Y	208	4.97%	15
	2Y1Y	35	3.17%	2
	3Y1Y	43	3.42%	3
	5Y1Y	55	3.43%	5
BULLETS	5Y2Y	40	3.28%	5
	10Y1Y	80	3.69%	10
	10Y2Y	72	3.61%	10
	1Y Bill	13.6	2.80%	1
CORPORATES⁴	2Y	8	2.90%	2
	5Y	8.5	2.97%	5
	10Y	40	3.29%	10
		Spread	YTM	Maturity
Industrials	IND5Y	94	3.82%	5
	IND10Y	131	4.20%	10
Banks	BK5Y	133	4.21%	5
	BK10Y	172	4.61%	10
Financials	FIN5Y	136	4.24%	5
	FIN10Y	173	4.62%	10
Utilities	UTIL5Y	123	4.11%	5
	UTIL10Y	162	4.51%	10

SBAs	BEEM	BEY	Eff Dur	
 7Y SBA	204	2.71%	0.25	
 10Y SBA	183	2.92%	0.25	
 25Y SBA	169	3.06%	0.25	
MBS Pass-Thrus ¹	Spread	YTM	Avg. Life	Coupon
 FN10Y	36	3.22%	3.54	3.0
 FN15Y	50	3.39%	5.46	3.0
 FN20Y	84	3.73%	5.38	4.0
 FN30Y	125	4.16%	7.57	4.0
CMOs ¹	Spread	YTM	Avg. Life	
 2YPac	33	3.15%	2.00	
 5YPac	58	3.46%	5.00	
 3YSeq	48	3.34%	3.00	
MBS ARMs ²	Z-Spread	YTM	Eff. Dur	
 FN3X1	15	3.00%	2.32	
 FN5X1	35	3.20%	3.28	
 FN7X1	75	3.60%	3.93	
 FN10X1	100	3.85%	4.54	
CLOs	DM	BEY	Eff. Dur	
 AAA CLO	183	4.12%	0.25	
 AA CLO	266	4.95%	0.25	
 A CLO	326	5.55%	0.25	
 BBB CLO	466	6.95%	0.25	
MUNIs-BQs ³	Spread	YTM	Maturity	
 10Y	55	3.44%	10	
 15Y	71	3.66%	15	

¹Pass-Thrus & CMOs Maturity = Avg. Life

²ARMs Maturity = Eff. Duration

³MUNIs = AAA rated

⁴Corporates = A rated

European Call- Callable one-time after a specified lockout period

Decisions during BankExec

===== Purchase Securities =====		
Security Type	Amount (Par,Mil)	Maturity in Quarters
BL	5	4
BD	5	4
AG	5	4
SV	5	4
SF	5	4
TE	5	4
BL	5	4
BD	5	4
AG	5	4
SV	5	4
SF	5	4
TE	5	4

BL: Bills, BD: Bonds, AG: Agencies,
 SV, SF: Variable, Fixed Rate Swaps,
 TE: Bank qualified Tax-Exempt bonds.
 \$5 million available,
 60 quarters maturity at 4.68%.
 Taxable-equivalent yield is 7.07%.
 Note: Maximum bill maturity is 4 quarters.

Funding your Assets

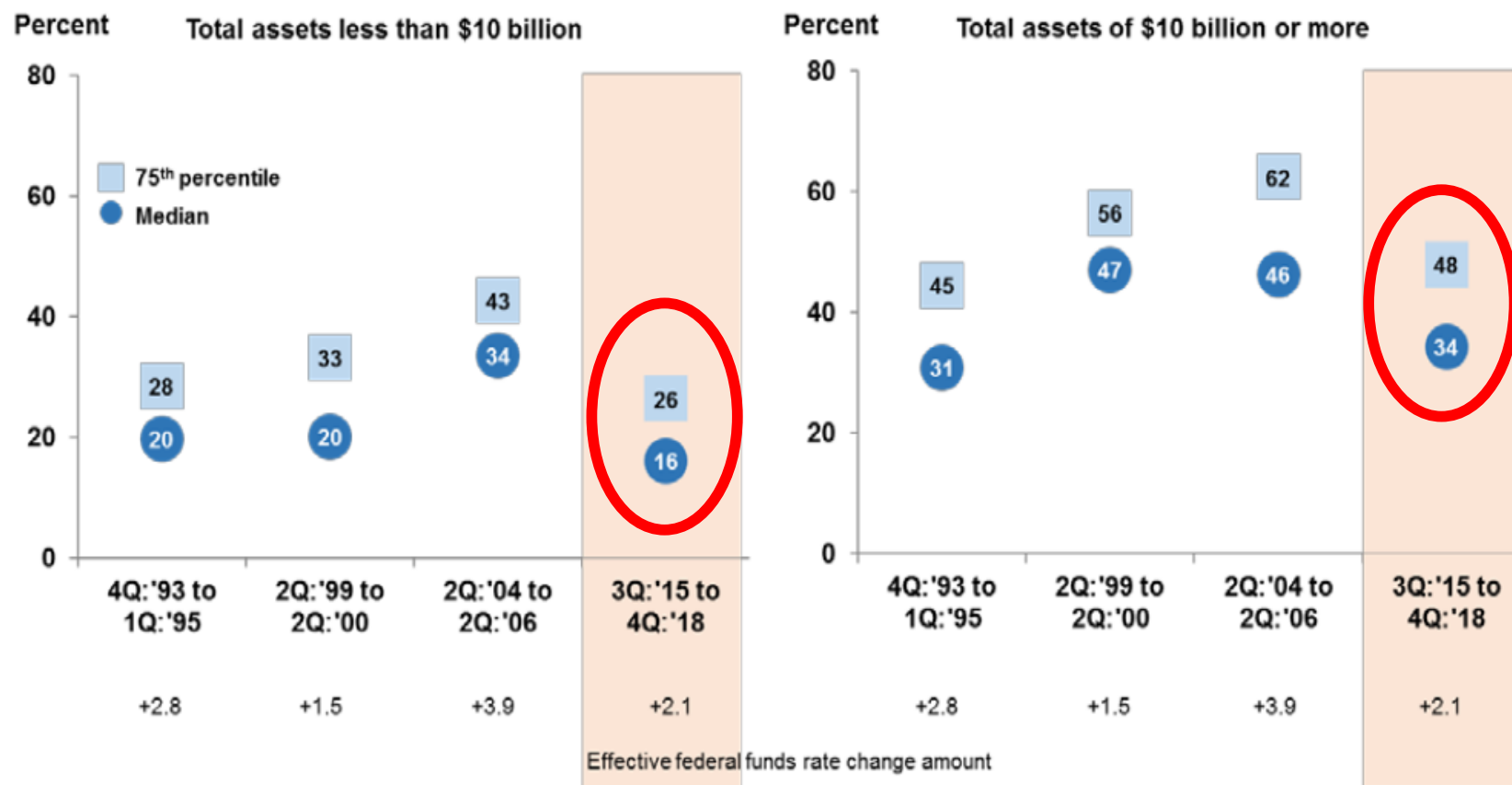
Liability Side of Balance Sheet

- Retail Deposits
 - Demand deposits
 - NOW accounts
 - Money Market Accounts
 - Time Deposits/CDs
 - CDARS
- Wholesale Deposits
 - Brokered Time Deposits/CDs
 - Repurchase Agreements
- Fed Funds Purchased
- Federal Home Loan Bank (FHLB) Advances
- Other forms of debt/hybrid capital securities

Deposit Beta by Cycle – Previous Cycle

Beta = Change relative to another factor

Figure 14: Interest Rate Cycle, Interest-Bearing Deposit Beta



Source: Integrated Banking Information System (OCC)

Note: Includes national banks only because of data limitations. Data are merger-adjusted for institutions in continuous operation in each time period. Deposit beta is the change in funding cost divided by the change in the effective federal funds rate.

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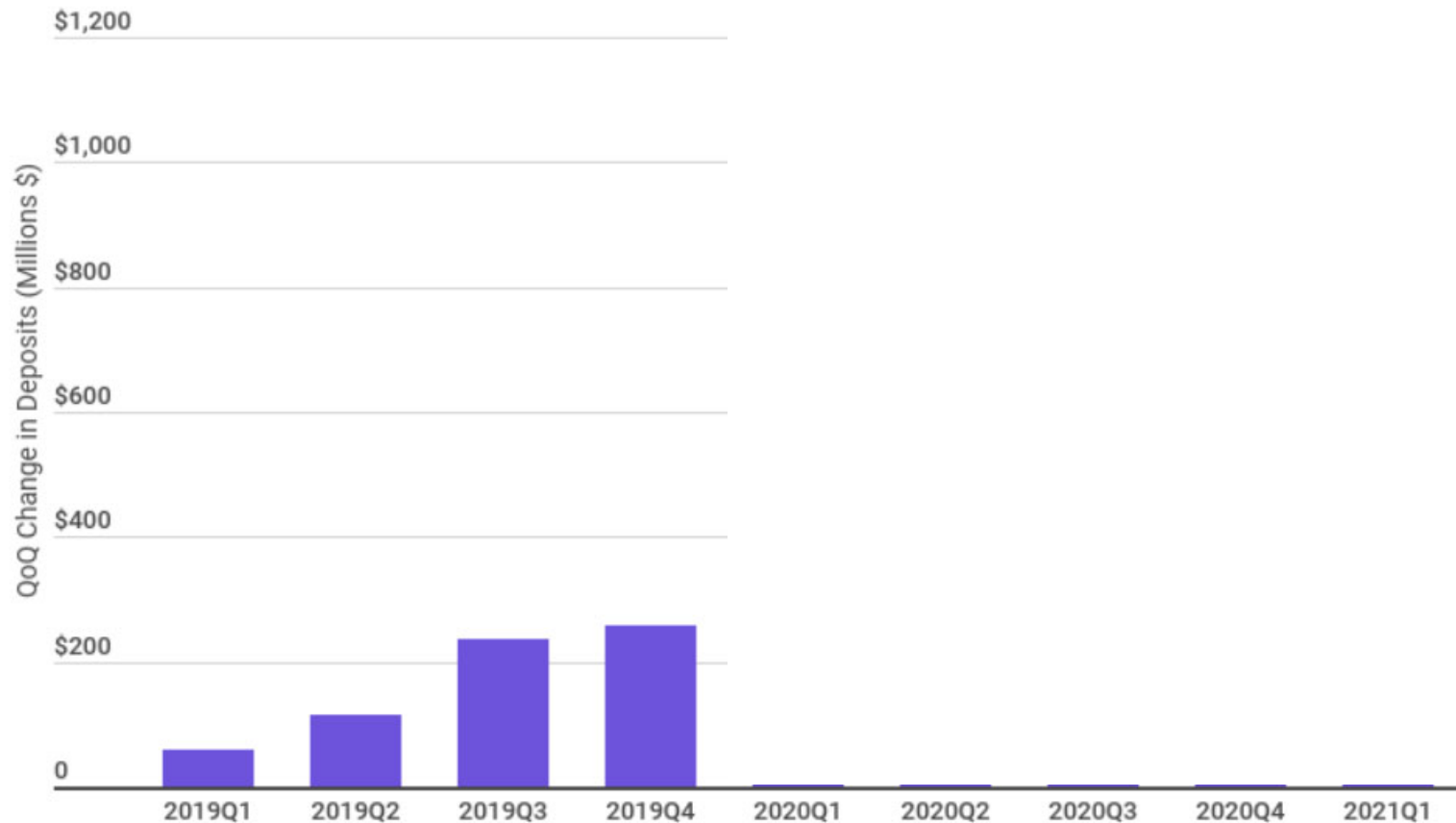
A Note on Liquidity

- What is liquidity?
- Sources (+) and Uses (-) of Cash
- Types of Liquidity
 - Balance Sheet-based liquidity
 - Liability-based liquidity
- Can I have too much or too little liquidity
 - What is impacted if I have too much?
 - Stress tests help understand what would happen in a crisis scenario vs. baseline
- Can a lack of liquidity cause a bank to fail?
- BankeExec Tip – Funds Borrowed > Capital = OH NO!

Covid Shutdown Drives Deposit Growth

Banks have experienced an influx of deposits since the beginning of 2020

Amid a global pandemic, the ensuing flight to safety, excess liquidity and higher cash balances have surged deposits for the banking industry.



Source: FDIC

ONE YEAR AGO – TODAY?

CFO JOURNAL

Banks to Companies: No More Deposits, Please

Some banks, awash in deposits, are encouraging corporate clients to spend the cash on their businesses or move it elsewhere

What's the Right Amount of Cash and Unencumbered Securities?


- Focus on Cash and Unencumbered Securities-to-Assets Ratio
- Low of 12.9% in 3Q08, High of 22.0% in 1Q13
- Average over the time period of 16.8%

Cash and Unencumbered Securities/Assets Ratio (%)

The
Economist

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Weekly edition

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Mar 18th 2021 edition >

More is sometimes enough

America's banks have too much cash

Abundant liquidity is meant to help markets. It might soon cause trouble

0

2Q06 2Q07 2Q08 2Q09 2Q10 2Q11 2Q12 2Q13 2Q14 2Q15 2Q16 2Q17 2Q18 2Q19 2Q20

Managing Liquidity

	Beginning Balance	First Day Activity	Funds for Quarter		Ending Balance
			Provided	Used	
Securities (Book Value)	25.0	0			25.0
Loans (Net)	647.0	-8.9		42.1	680.2
Other Assets	105.5		.3		105.2
Repos	0	0			0
Corporate CDs	0	0			0
FHLB Borrowing	0	0			0
Customer Deposits	734.2			14.3	719.8
Other Liabilities	34.4			.7	33.7
Capital Notes	0	0			0
Owner's Equity	63.9	0	1.6		65.5
Net Position:	-55.0	-8.9	1.8	57.1	-8.6
Funds Positions					
Fed Funds Sold	55.2	63.7			8.9
Fed Funds Borrowed	0	0			0

Managing Customer Liquidity

	Beginning Balance	Deposits			Accrued Interest	Net Service Charges and Fees	Ending Balance
		New	Matured	With- drawals			
Business Checking	71.094	2.915		2.936		.251	70.823
Individual Checking	156.641	15.545		8.371	.135	.846	163.102
Individual Savings	270.451	10.303		34.875	1.144	.099	246.924
Time Accounts							
Variable Rate	15.920	0	4.605	0	.163		11.478
Fixed Rate	220.082	14.507	9.869	0	2.797		227.517
Total	734.188	43.270	14.475	46.182	4.239	1.197	719.843

Time Accounts Maturities						
	Next Quarter	Quarter Two	Quarter Three	Quarter Four	Over 1 Year	Total
Variable Rate	0	0	0	0	11.5	11.5
Fixed Rate	33.2	32.3	19.9	28.5	113.7	227.5
Total	33.2	32.3	19.9	28.5	125.1	239.0

Treasury Management

(Wholesale - Non-customer funding)

Source	Decision Amount	Current Quarter				Prior Quarter			Matured
		Available Amount	Available Rate (%)	Current Maturing	Current Balance	Decision Amount	Avail. Amount	Avail. Rate (%)	
Fed Funds Borrwd			6.13	0				4.83	0
Repos	-- -- --	10	5.75	0		0	10	4.63	0
CDs				0					0
1 Quarter	-- -- --	58	6.46		0	0	57	5.27	
2 Quarter	-- -- --	43	6.33		0	0	43	5.43	
3 Quarter	-- -- --	14	6.26		0	0	14	5.54	
4 Quarter	-- -- --	29	6.22			0	29	5.62	
			Maturity						Maturity Decision
FHLB Borrowing	-- -- --	130	-- --	0	0	0	119		0

--- Capital Notes and Common Stock ---

Decision Amount	Issue	Current Quarter			Prior Quarter	
		3 - 5 Million	6 - 10 Million	12 - 16 Million	Decision Amount	Price or Rate
	Capital Notes					
-- --	Interest Rate	6.19	6.18	6.20	0	
	Common Stock					
-- --	Price Per Share	19.14	19.25	19.30	0	

==== Dividends and Forecast Earnings =====

Dividends per Share:

-- -- --
.14

Earnings per Share, Forecast:

(Current Quarter: .69) -- -- --
.45

Capital Management

- Can you have too much?
 - Why do banks raise dividends/buyback stock
- How do you measure if have enough?
 - Stress tests/CCAR-DFAST scenarios
- Book Value = Capital/# shares outstanding
- Management decisions
 - Right mix of capital?
 - What is right dividend strategy?
 - Should I buy back shares or issue shares?

Capital Management

Bank	Price/Share		Pcnt Chng	Ratios		Earnings		Earnings per Share			Dividends			Credit Rating
	Q4/21	Q3/21		P/E	Mkt/Book	Qtr	YTD	Fcast	Actual	YTD	Qtr	YTD	Yield	
1	20.07	16.29	23.2	20.1	.92	1.46	2.95	.39	.49	1.00	.12	.70	2.4	A
2	17.24	16.33	5.6	50.8	.80	.47	1.01	.15	.16	.34	0	.45	0	B
3	20.37	17.59	15.8	16.3	.92	2.03	3.70	.45	.69	1.25	.14	.61	2.7	A
4	24.45	19.30	26.7	11.9	1.07	3.02	6.11	.86	1.02	2.06	.17	.71	2.8	A

Bank	----- Owners Equity and Capital Ratios -----						----- Capital Issues -----			
	Shares Outstanding	Book Value	Capital Notes / Equity + Capital Notes %	Equity / Total Assets %	Capital / Risk Assets %	Capital Notes		Common Stock		
-----						Amount	Rate	Issue Price	Shares	Total
1	2,960,625	21.89	0	7.68	10.50					
2	2,960,625	21.43	0	8.95	12.12					
3	2,960,625	22.11	0	7.99	10.61					
4	2,960,625	22.94	0	7.00	9.50					

Leveraging Balance Sheet to Drive Profitability

How does the Balance Sheet drive the income statement and the growth of capital?

Bank Income Statement

- + Interest Income
- Interest Expense
- + Net Interest Income
- Provision for loan losses
- + Non-interest Income
- Non-interest expense
- + Pre-tax Income
- Federal Tax Expense
- + Net Income/Return of Assets

6 Major
Components

Income Statement

	12/31/21	9/30/21	6/30/21	3/31/21
Interest Income	12.644	11.820	11.116	10.305
Loans	11.899	10.688	9.980	9.367
Business	4.346	3.411	2.952	2.633
Real Estate	5.119	5.020	4.942	4.789
Consumer	2.434	2.257	2.086	1.945
Other	0	0	0	0
Securities: Taxable Income	.106	.106	.106	.190
Securities: Tax-exempt Income	.141	.141	.141	.141
Federal Funds Sold	.498	.885	.889	.608
Interest Expense	4.239	4.328	4.595	4.583
Checking Accounts	.135	.128	.121	.112
Savings Accounts	1.144	1.201	1.366	1.320
Time Accounts	2.960	2.999	3.109	3.151
Certificates of Deposit	0	0	0	0
Borrowed Funds	0	0	0	0
FHLB Borrowing	0	0	0	0
Capital Notes	0	0	0	0
Net Interest on Swaps	0	0	0	0
Net Interest Income	8.405	7.492	6.520	5.723
Service Charges & Other Income	2.686	2.585	2.416	1.952
Loan Loss Provision	.791	.753	1.210	.727
Operating Expenses	7.478	7.497	7.818	7.054
Salaries and Benefits	5.419	5.467	5.804	5.035
Advertising - Promotion	.050	.050	.050	.100
Occupancy & Other Op. Expenses	2.009	1.980	1.965	1.919
Operating Earnings	2.823	1.828	-.092	-.107
Gains/Losses on Asset Sales	.284	.047	0	.719
Income Taxes	1.073	.630	-.077	.176
Net Income	2.033	1.245	-.015	.435
Earnings Per Share	.687	.420	-.005	.147
Interest Income/Earning Assets	7.02	6.37	5.98	5.70
Interest Expense/Int-bear Liab	2.59	2.56	2.71	2.80
Spread	4.43	3.82	3.27	2.90
Net Interest Inc/Earning Assets	4.67	4.04	3.51	3.17
Net Interest Inc/Total Assets	4.07	3.54	3.08	2.78
Operating Expense/Total Assets	3.62	3.54	3.69	3.43
Net Non-Int Exp/Total Assets	2.32	2.32	2.55	2.48
Operating Earning/Total Assets	1.37	.86	-.04	-.05
Net Income/Total Assets	.99	.59	-.01	.21
Net Income/Owners Equity	12.43	7.79	-.09	2.74

Net Interest Income

- + Short-term funds sold
 - + Investment securities
 - + Loan Interest income
 - + Loan Fee Income (spread)
 - Deposit interest expense
 - Other Borrowings/Funds purchased
 - = NET INTEREST INCOME
- Annualize if not an annual number*

Net Interest Margin



- The **primary** profit driver for majority of banks
- Measures the level of net interest income compared to average earning assets
- Asset mix and low-cost funding major factors
- A higher number is better
- Calculation:
 - Annualized net interest income / Avg. Earning Assets

Non-Interest Income Sources

- + Deposit Fee Income
- + Treasury/Cash Management Fees
- + ATM/Card/Merchant Services
- + Investment Brokerage/Trust fees
- + Mortgage Loan Origination and Sales
- + Insurance Brokerage/Title Insurance
- + Bank owned life insurance
- + Other_____

Non-Interest Expenses

1. Salaries and Commissions
2. Employee Benefits
3. Facilities
4. Equipment and IT Costs
5. Marketing and Advertising
6. Other_____

Public Companies

Earnings per share drives stock price

Net income / # shares stock = EPS

EPS x market multiple = Stock Price
(EPS/Stock Price = market multiple)

What else drives stock price?

Budgeting and Planning

Profit Plan Worksheet		
	Results for Qtr Ending 12/31/20	Plan for Quarter Ending 3/31/21
Interest Income	9.264	
Loans	8.445	
Securities: Taxable Income	.246	
Securities: Tax-exempt Income	.256	
Funds Sold	.316	
Interest Expense	4.382	
Checking & Savings Accounts	1.088	
Time Accounts	3.016	
Certificates of Deposit	.281	
Borrowed Funds	0	
FHLB Borrowing	0	
Capital Notes	0	
Net Interest on Swaps	0	
Net Interest Income	4.881	
Service Charges & Other Income	1.992	
Loan Loss Provision	.449	
Operating Expenses	6.651	
Salaries and Benefits	4.684	
Advertising - Promotion	.100	
Occupancy & Other Op. Expenses	1.867	
Operating Earnings	-.226	
Gains/Losses on Asset Sales	0	
Income Taxes	-.162	
Net Income	-.064	
Number of Outstanding Shares	2,000,000	
Earnings Per Share	-.032	



Interest Rates

- What Interest rates?
 - Fed Funds Target rate
 - WSJ Prime Rate
 - Libor (sunset 2022-2023)
 - US Treasury
 - Swap Curve
 - Deposit rates
 - SOFR - Secured Overnight Financing Rate
 - Ameribor – American Financial Exchange term rates
 - Do all these rates move at the same time?
 - Do all these rates move in tandem?
- FRB-FOMC
Top Banks
ICE*
Marketplace
Marketplace
Your Bank/Market

Interest Rate Risk

- What is Interest Rate Risk?
 - Risk to earnings and the value of a bank to changes in interest rates
- Why is it Important?
 - 1980s Savings and Loan Crisis/end of deposit pricing controls
- What are the two key measures of interest rate risk?
- How does the balance sheet contribute to or help to mitigate interest rate risk?

Effective Fed Funds Rate History

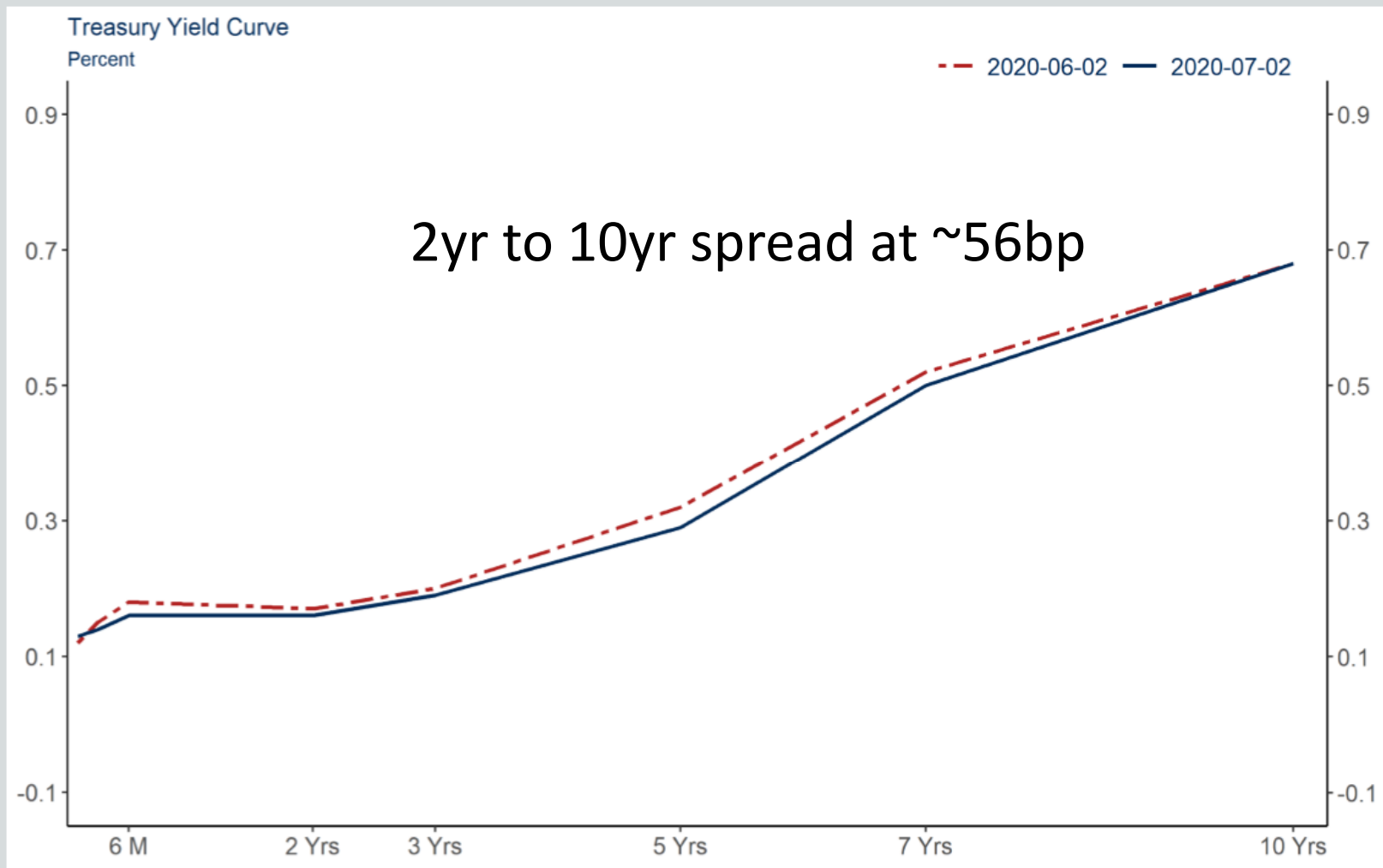
As of June 2022

Fed Funds Rate History (Effective Rate) - 1954 to Present



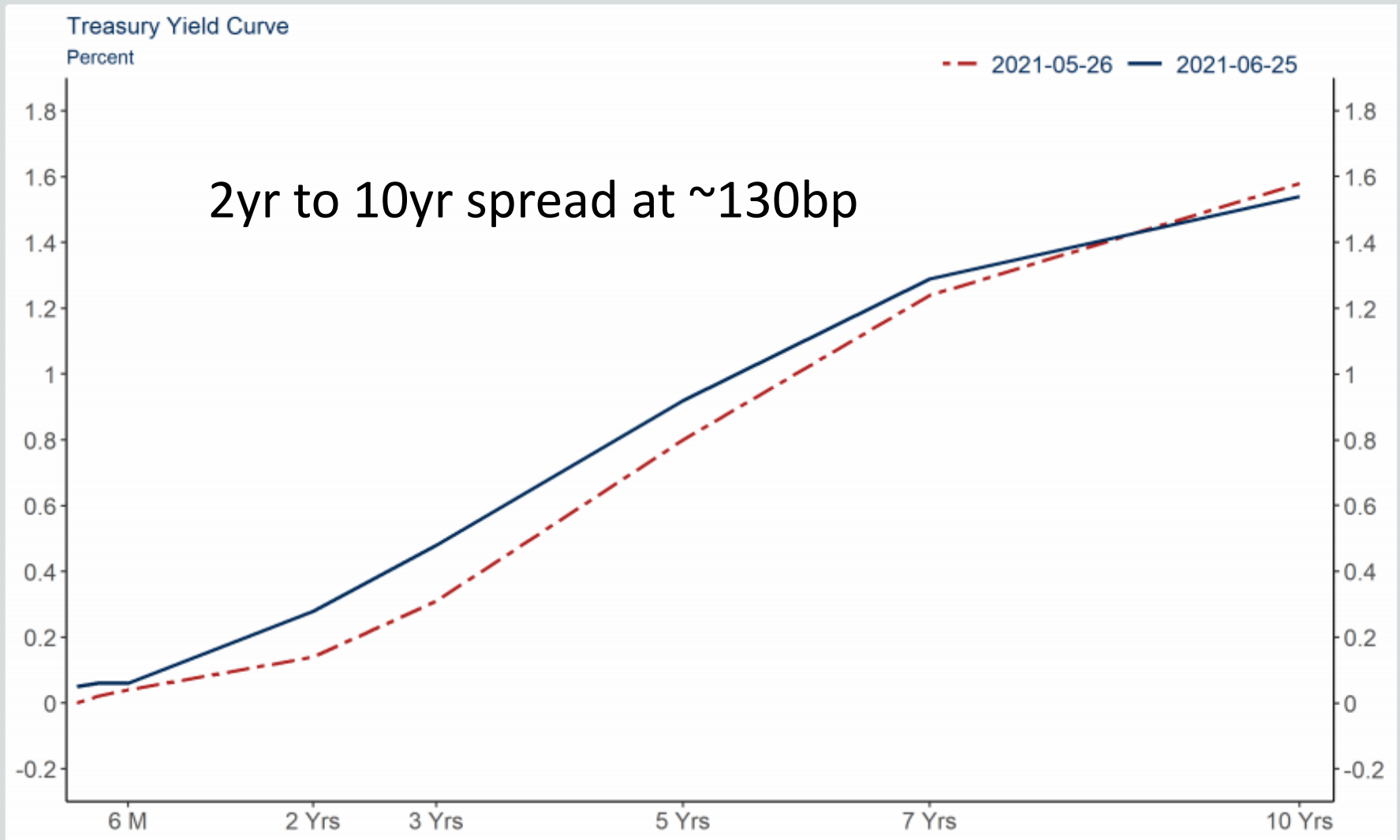
Current Yield Curve – 2 yr prior

Treasury Yield Curve



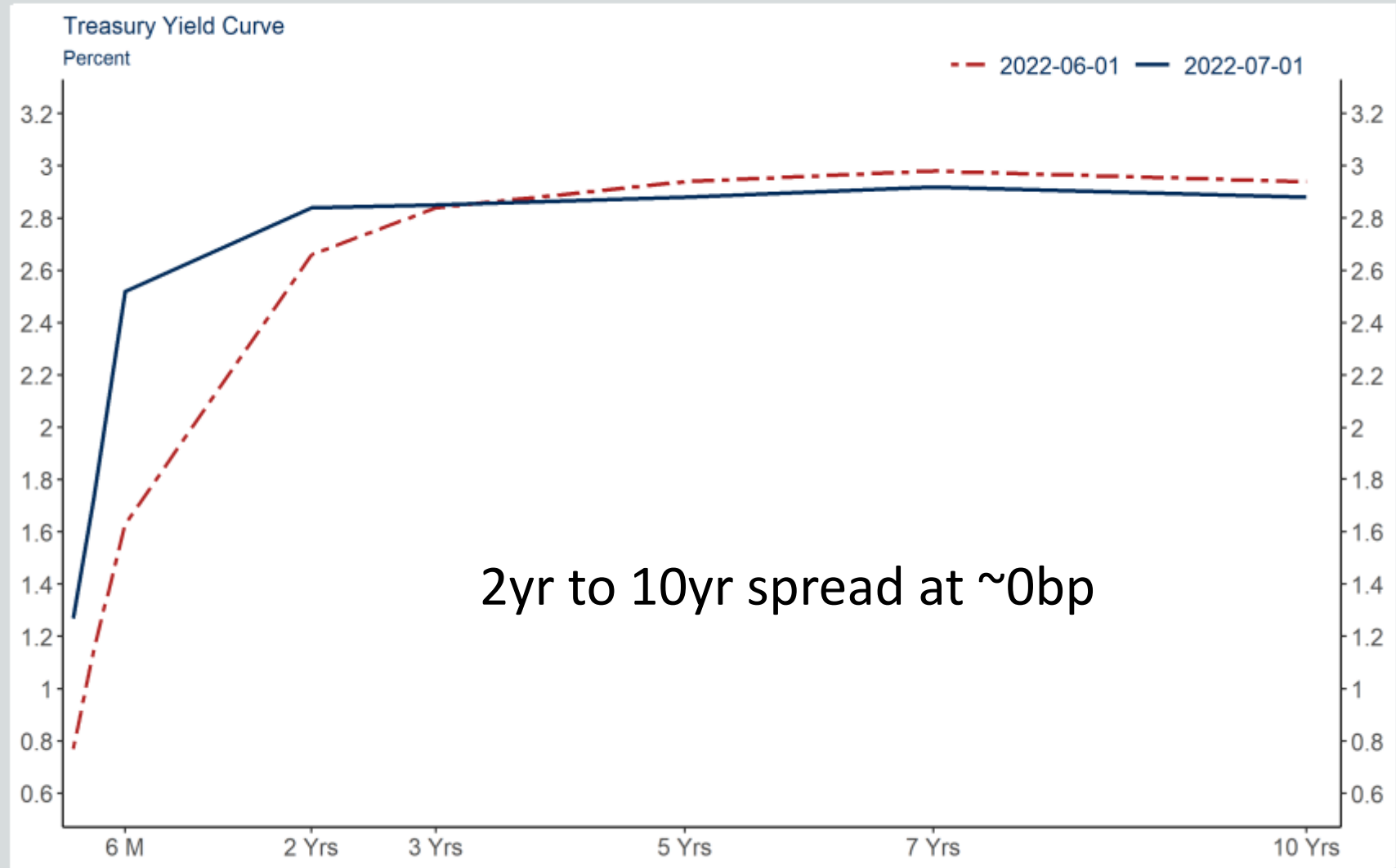
Current Yield Curve – 1 Year prior

Treasury Yield Curve

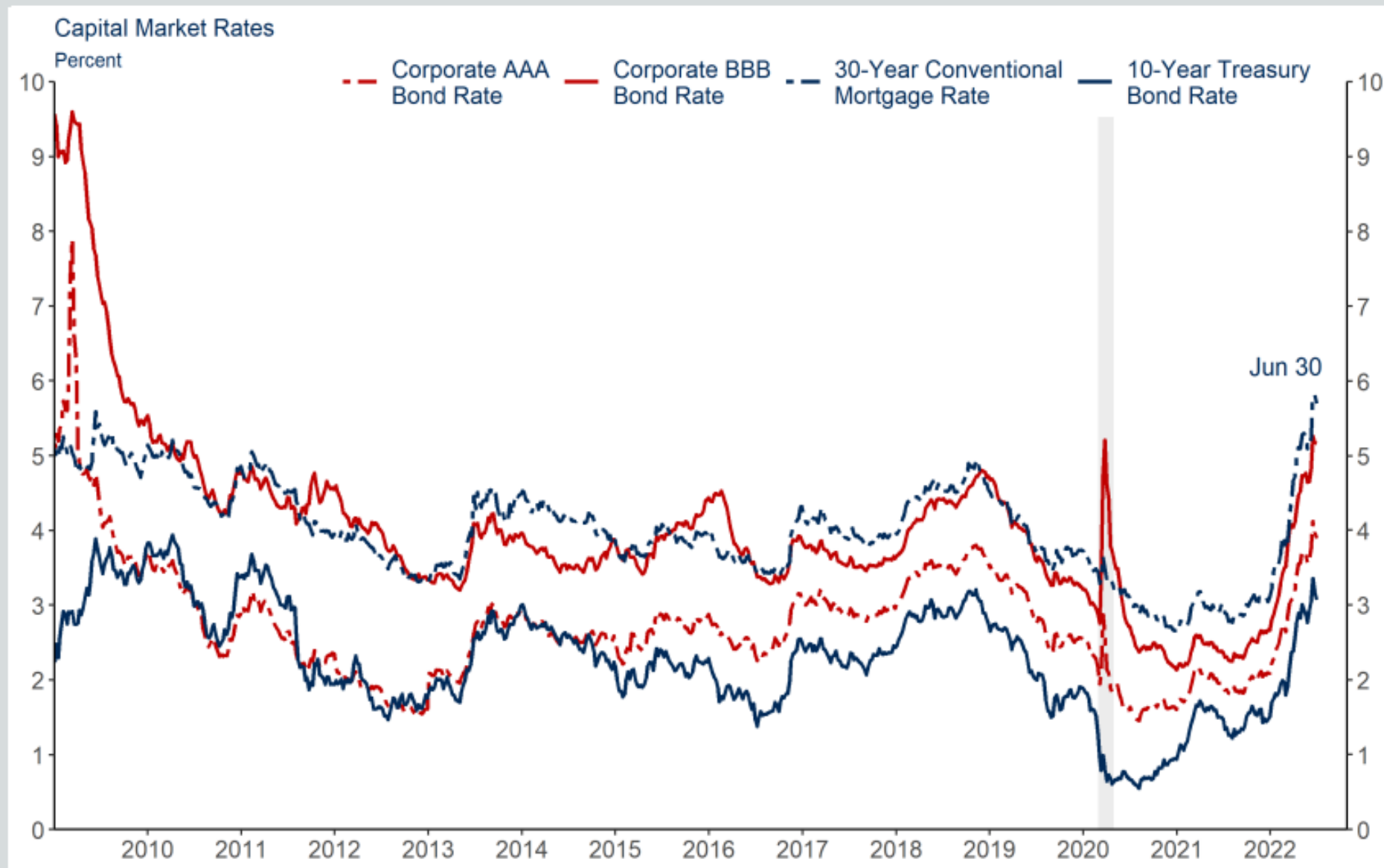


Yield Curve – July 1, 2022

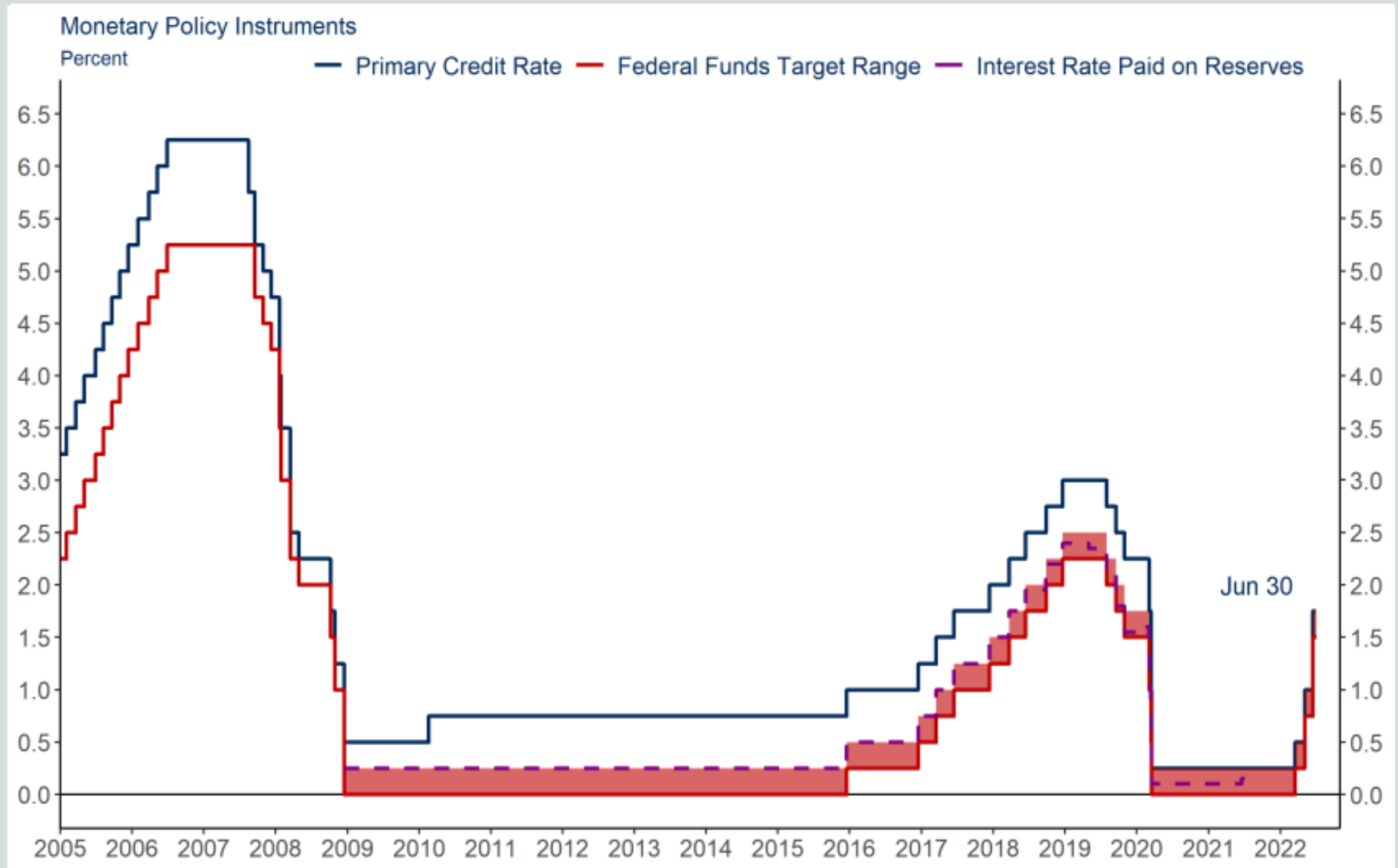
Treasury Yield Curve



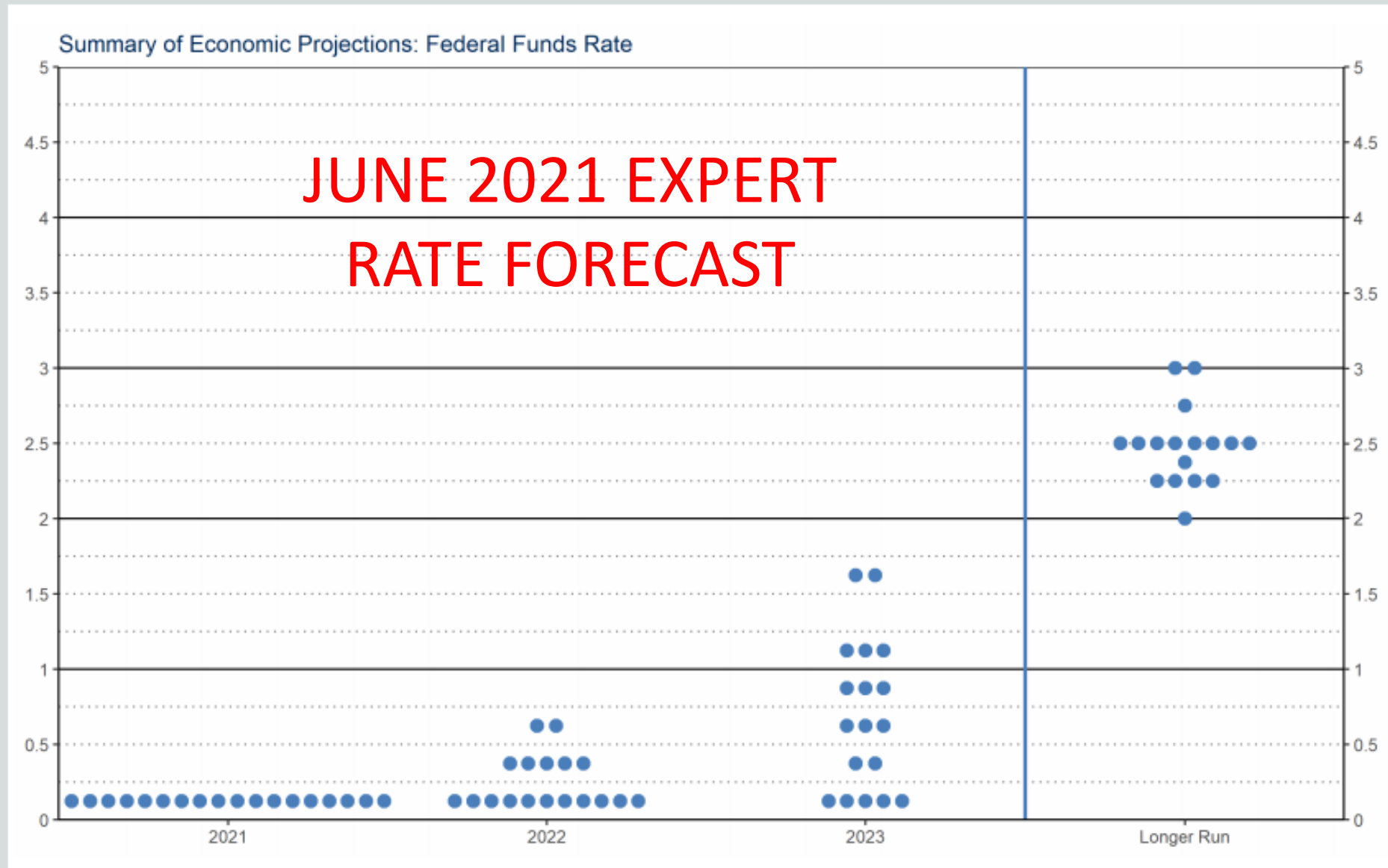
Capital Market Rates



Monetary Policy Instruments



Summary of Economic Projections: Federal Funds Rate



Note: Each dot in the chart represents the value of an FOMC participant's judgment of the midpoint of the appropriate target range (or the appropriate target level) for the federal funds rate at the end of the calendar year. Projections made during the June 2021 meeting.

MARCH 2022 EXPERT RATE FORECAST

ON MARCH 18, 2022

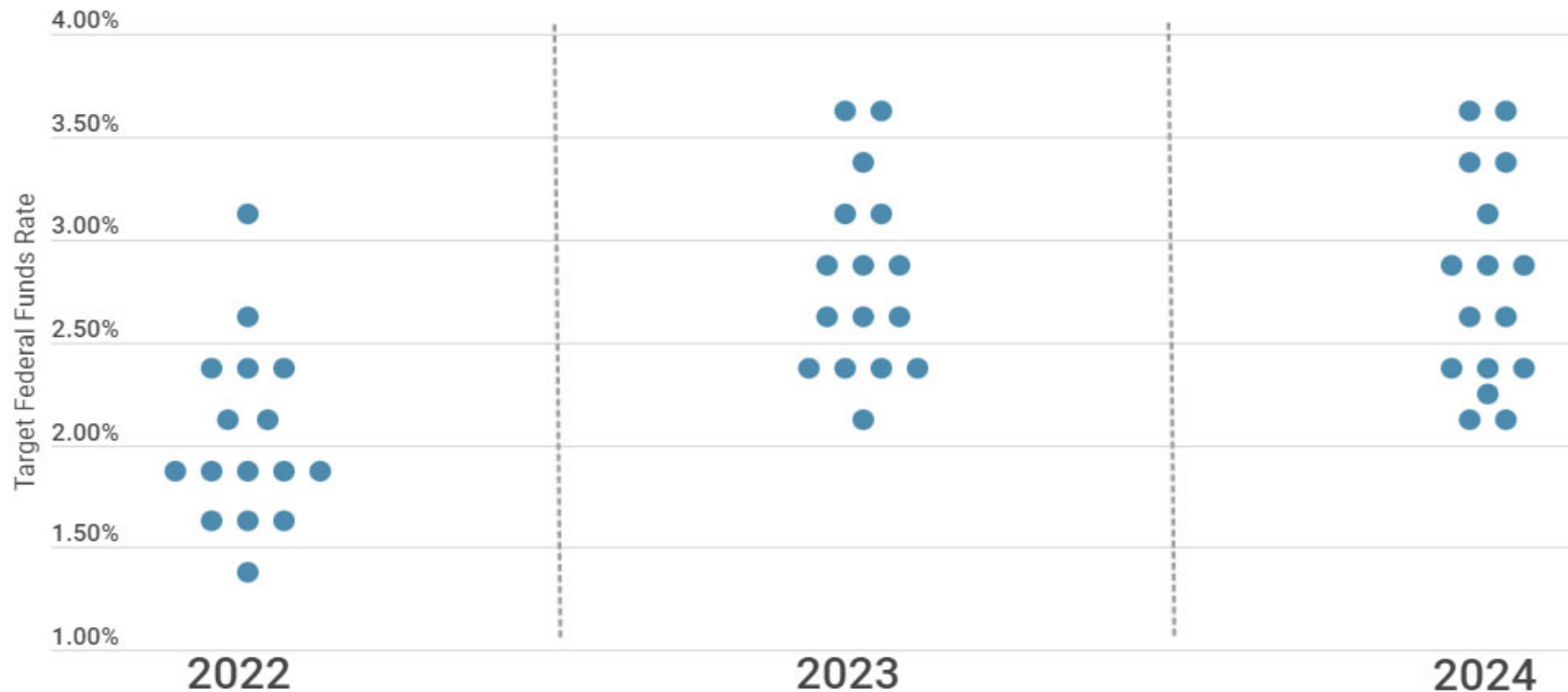
ECONOMY, NEWSBYTES



FOMC Raises Fed Funds Rate 25 Basis Points in March



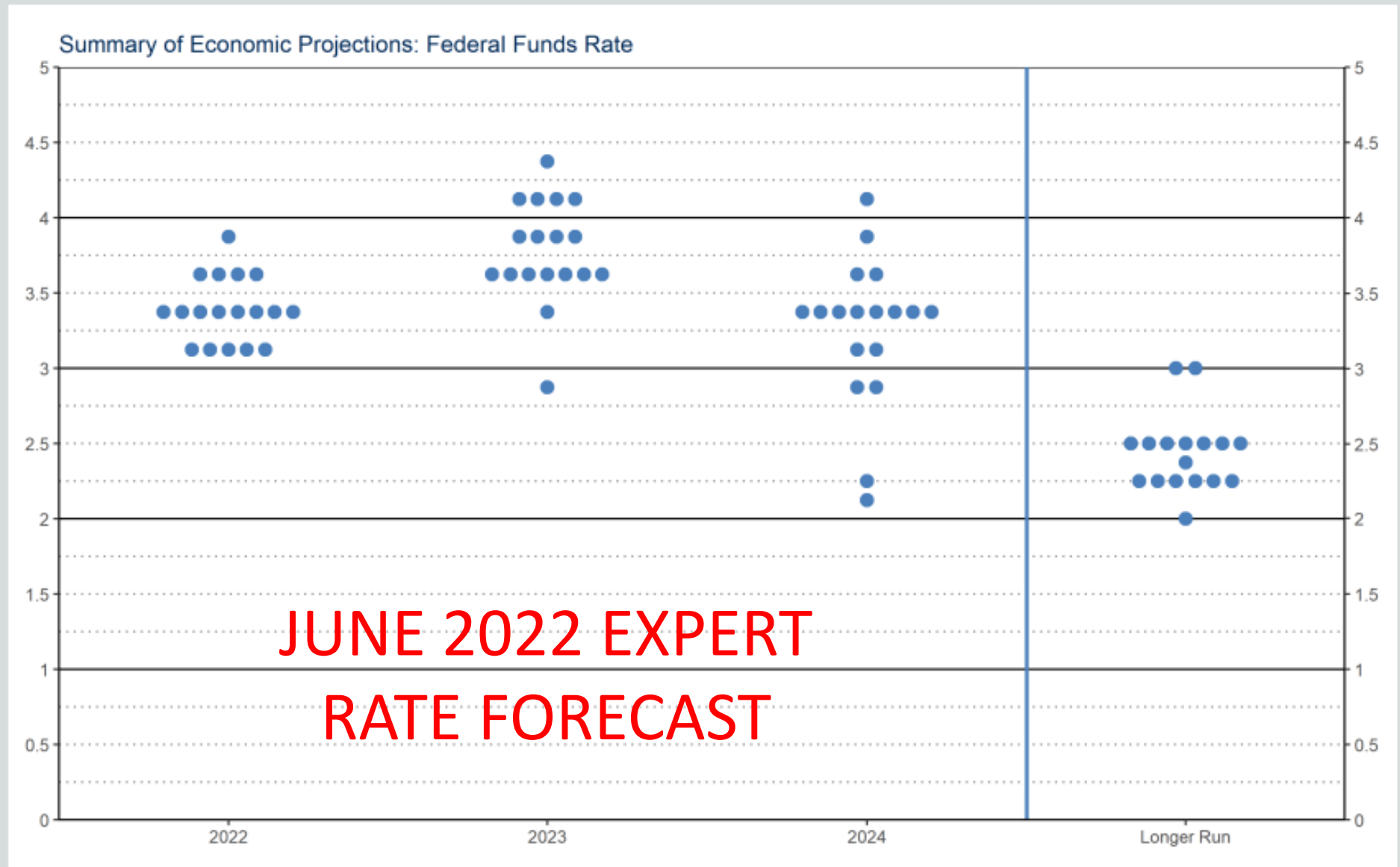
According to the Federal Open Market Committee dot plot, the Federal Reserve expects to increase rates six more times this year, which would take the federal funds rate from its current position, 25-50 basis points, up to 175-200 basis points.



Source: Federal Reserve

ABA DATA
BANK

Summary of Economic Projections: Federal Funds Rate



**JUNE 2022 EXPERT
RATE FORECAST**

Interest Rate Risk

- What is Interest Rate Risk?
 - Risk to earnings and the value of a bank to changes in interest rates
- Why is it Important?
 - Reg Q and the Savings and Loan Crisis
 - Added the S to CAMEL rating = CAMELS
- How does the balance sheet contribute to or help to mitigate interest rate risk?
- What are the two key measures of interest rate risk?

Basic Example for \$100 million assets:

- What if

- 3 Year term loan portfolio @ 4.00% \$ 4,000,000
- Funded with 3 Year CD @ 1.00% \$(1,000,000)
- Net spread is **3.00%** (\$3,000,000 profit) = \$ 3,000,000
- Rates move up in one year, what happens?

- What if

- Average loan term is 3 years @ 4.00% \$4,000,000
- Average funding is 1 year @ 0.50% \$ (500,000)
- Net Spread is **3.50%** (\$350,000) Year 1 \$3,500,000
- Funding rates rise by 1.00% per year
- Net spread in year 2?
- Net spread in year 3?
- TOTAL PROFIT

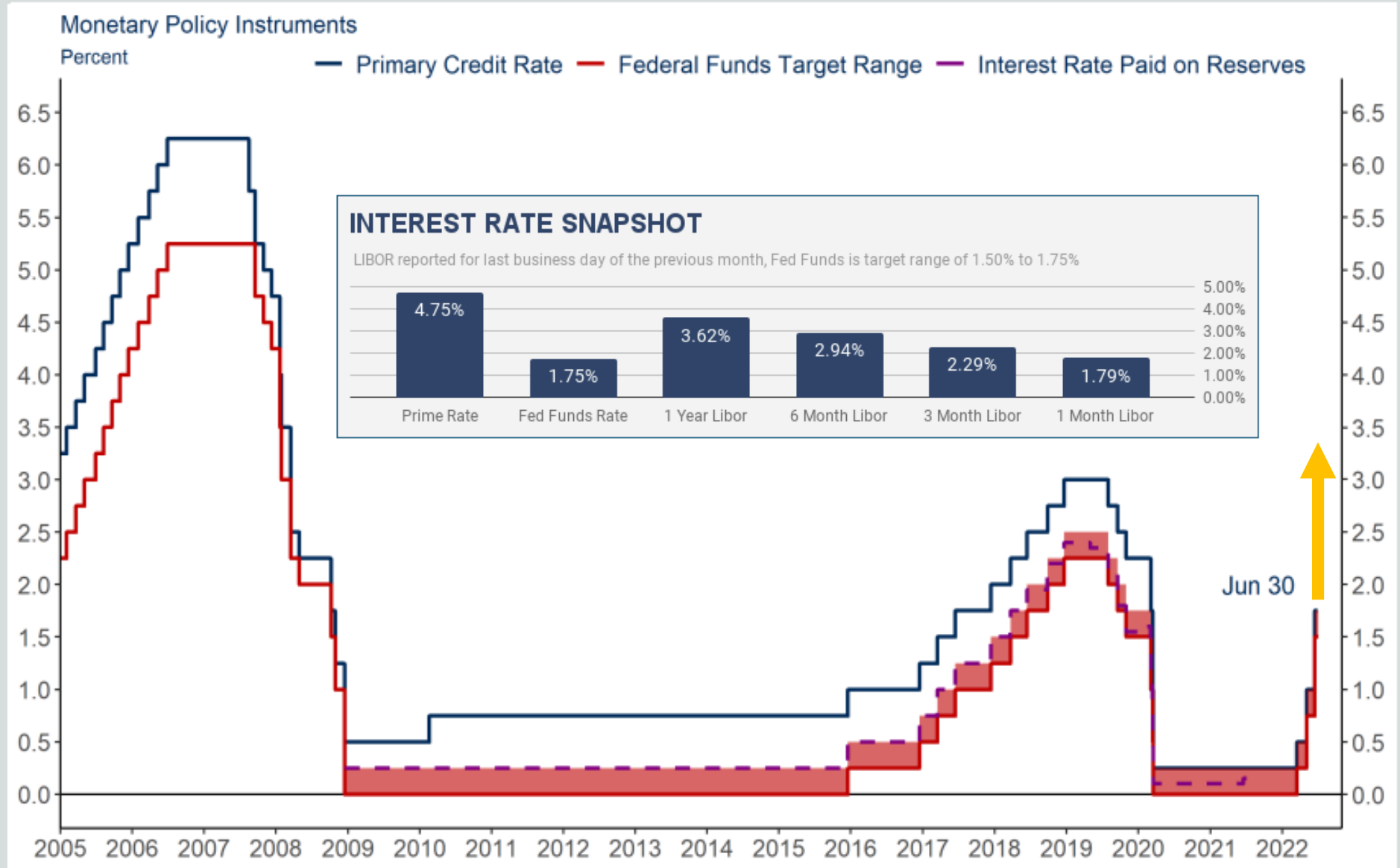
Timing is Everything

- \$1,000 5 year fixed rate loan
- \$1,000 1 year CD to fund
- Rates go up – what happens to income
 - Loan Customer enjoys 5 year fixed rate loan
 - Deposit Customer demands market rate years 2,3,4,and 5
- Rates go down – what happens to income
 - Loan Customer enjoys 5 year fixed rate loan OR refinances to lower rate (customer put option)
 - Deposit Customer accepts lower interest rate for renewals in years 2,3,4,and 5

Rate Sensitivity Defined

- Asset Sensitive
 - assets will reprice faster than liabilities
 - Rates go up - we reprice our earning assets faster than our funding costs - Earnings go up or down?
 - Rates go down - we reprice our earning assets faster than our funding costs – Earnings go up or down?
- Liability Sensitive
 - liabilities will reprice faster than our assets
 - Rates go up - we reprice our funding costs faster than our earning assets- Earnings go up or down?
 - Rates go down - we reprice our funding costs faster than our earning assets- Earnings go up or down?

Monetary Policy Instruments



Measuring Interest Rate Risk

- There are 2 key measures of interest rate risk:
 - Net Interest Income at risk (EAR) – measures the impact of changes in interest rates on **future net interest income**
 - Economic Value of Equity (EVE) at risk – measures the impact of changes in interest rates on the value of assets and liabilities and, therefore the **adjusted book value of equity**.

Measuring Interest Rate Risk

- Historical/ALCO Report Cards
 - Net Interest Income Analysis
 - Rate/Volume variance
- Basic Forecast
 - Repricing GAP – Schedules out based on when reprices
 - Maturity GAP - Schedules out based on when matures
- Simulation Analysis
 - Interest Rate Shock/Ramps
 - Forecasting Net Interest Income
 - Economic Value of Equity

Third Bank Repricing Gap

	Total 12/31		Estimated Interest Rate Sensitivity				
	Amt	Inc/Exp	1 Qtr	2 Qtr	3 & 4 Qtr	1-4 Qtr	Over 1 Year
==== Assets =====							
Federal Funds Sold	8.9	.5	8.9			8.9	
Securities (Book Value)	25.0	.2	0	0	0	0	25.0
Business Loans	223.8	4.3	223.8			223.8	
Real Estate Loans	323.3	5.1	30.6	25.4	44.0	100.0	223.3
Consumer Loans	139.9	2.4	23.7	21.3	18.8	63.8	76.1
Other Loans	0	0	0			0	
All Other Assets	98.4						98.4
Total	819.4	12.6	287.0	46.7	62.8	396.6	422.8
==== Liabilities and Equity =====							
Federal Funds Borrowed	0	0	0			0	
Repos	0	0	0			0	
FHLB Borrowing	0	0	0	0	0	0	0
Certificates of Deposit	0	0	0	0	0	0	
Checking and Savings *	480.8	1.3	220.5			220.5	260.4
Time Accounts	239.0	3.0	44.7	32.3	48.4	125.3	113.7
Capital Notes	0	0					0
Equity & Other Liabilities	99.2						99.2
Total	819.1	4.2	265.1	32.3	48.4	345.8	473.2
==== Summary Positions =====							
Net Balance Sheet Position (A - L)	8.4		21.9	14.5	14.4	50.7	-50.4
Fixed Rate Swaps	0		0	0	0	0	0
Variable Rate Swaps	0		0	0	0	0	0
Interest Rate Gap	8.4		21.9	14.5	14.4	50.7	-50.4
Interest Rate Gap / Assets (%)	1.0		2.7	1.8	1.8	6.2	-6.2

Interest Rate Risk Modeling

- Calculates impact to NIM and EVE/Capital
- Adds new volume at new rates
- Accounts for basis risk for different A&L
- Accounts for Call risk in investment portfolio
- Many Assumptions
 - Non-maturity deposit behavior, runoff
 - Replaces volume with like-kind instruments
 - Loan pre-payments
 - Integrated flat or budgeted growth

Simulation Analysis

The following table represents interest rate sensitivity on our net interest income using different rate scenarios:

<u>Change in Prime Rate</u>	<u>% Change in Net Interest Income</u>
+ 300 basis points	9.83 %
+ 200 basis points	6.76 %
+ 100 basis points	3.34 %
- 100 basis points	(4.75)%

If rates rise 100 bp will this bank lose money or make more net interest income if their simulation is correct?

Are they asset or liability sensitive?

Simulation Analysis

Summary ALCO - Earnings Simulation - 12 Month Horizon Sample Bank - Anywhere, OK

Page 1 of 1

Interest Rate Risk (\$'s) Shift Horizon	YTD Annualized	Constant Balance Sheet **	Immediate +400/+400 bp 0 Mo.	Non-Parallel +400/+100 bp 12 Mo.	Parallel -100/-100 bp 12 Mo.	Unchanged Rate Scenario	Parallel +100/+100 bp 12 Mo.	Parallel +200/+200 bp 12 Mo.	Parallel +300/+300 bp 12 Mo.
12 Month Horizon in \$'s									
Change in Interest Income *	\$3,622	\$3,536	348,907	49,507	(312,614)	(181,785)	(40,352)	22,839	66,239
Change in Interest Expense	\$529	\$476	945,582	279,718	(74,952)	(8,399)	63,795	135,992	208,187
Net Interest Change			(596,675)	(230,211)	(237,662)	(173,386)	(104,147)	(113,153)	(141,948)
Projected Impact in \$000's									
Net Interest Income *	\$3,093	\$3,060	2,463	2,830	2,823	2,887	2,956	2,947	2,918
Net Interest Margin *	3.42	3.55	2.86 ✓	3.28 ✓	3.28 ✓	3.35 ✓	3.43 ✓	3.42 ✓	3.39 ✓
ALCO Benchmark	> 3.60%								
NIC as a % of NII			(19.50)	(7.52)	(7.77)	(5.67)	(3.40)	(3.70)	(4.64)
ALCO Risk Limits			> -20.00%	> -20.00%	> -12.50%	> -10.00%	> -12.50%	> -15.00%	> -20.00%
Net Income (Loss)	\$1,604	\$1,260	665	1,031	1,023	1,087	1,156	1,147	1,119
Return on Assets	1.60	1.27	0.67 ✓	1.03	1.03	1.09	1.16	1.15	1.12
ALCO Benchmark	> 0.80%								
Return on Equity	9.83	7.72	4.07 ✓	6.31 ✓	6.27 ✓	6.66 ✓	7.08 ✓	7.03 ✓	6.85 ✓
ALCO Benchmark	> 10.00%								

Different Rate Movement Scenarios

ALCO MEETING

- Select 1 person from your team to be:
 - CEO – grow shareholder value, earnings, vision
 - CFO – financial stability, IRR, liquidity, investments
 - CLO/Lending – loan growth, pricing and structure
 - CDO/Deposits – grow, marketable products
- Each team and team captain
 - Read assignment before tomorrow
 - We will give each team 10 minutes to prepare
 - Select your team captain for 5 minutes of fame
 - We will vote for most compelling position

Third Bank ALCO Agenda

- Historical and Trend Information
 - Current Financial Positions
 - Loan Portfolio
 - Deposit Portfolio
 - Investment Portfolio
 - Funding/Liquidity Position
 - Capital Position
 - Net Interest Margin History and Trend
 - Liquidity and Capital Stress Testing Results
 - Current Interest Rate Risk Position
 - Gap Analysis
 - Modeling Results
- Economic and Interest Rate Forecast
- Lending **Decisions/Recommendations**
 - Forecast net growth goals and pipeline
 - Rate/Loan Pricing targets
 - Actions to meet goals
- Deposit **Decisions/Recommendations**
 - Forecast net growth goals
 - Rates/Funds pricing
 - Actions to meet goals
- Treasury/Investment **Decisions/Recommendations**
 - Investment Maturities and Calls
 - Investment Actions
 - Wholesale funding Actions
 - Capital Actions
 - Hedging Activities

ALCO MEETING

- Select 1 person from your team to be:
 - CEO – grow shareholder value, earnings, vision
 - CFO – financial stability, IRR, liquidity, investments
 - CLO/Lending – loan growth, pricing and structure
 - CDO/Deposits – grow, marketable products
- Each team and team captain
 - Read assignment before tomorrow
 - We will give each team 10 minutes to prepare
 - Select your team captain for 5 minutes of fame
 - We will vote for most compelling position

Third Bank Monthly ALCO Meeting

- Committee Members:
 - Facilitator/Economic Update
 - CEO – Group 1 volunteer
 - CLO/SLO – Group 2 volunteer
 - CDO/Retail – Group 3 volunteer
 - CFO – Group 4 volunteer

What should ALCO really do?

- Make Decisions!
 - Maximize Net Interest Income
 - Minimize Interest Rate Risk
 - Manage Financial Risk/Capital
- Assets and Liability planning linkage
 - Products, Pricing, Promotion
- Manage Liquidity
- Manage Capital
- Drive Shareholder Value

Collaboration Across the Bank

- Why have line of business leadership attend?
 - Lending
 - Deposit gathering
 - Other lines of business impacted
- Why have marketing attend?
- Why have risk management attend?

Primary Components of ALCO Meeting

- Current Position
- Marketplace and Economic Conditions
- Internal and External Forecasts
- What actions do we take?
 - To improve NII and MVE
 - To manage existing risk
 - New product and service actions

Third Bank (TB)

ALCO Scenario

- The economy has been picking up recently. TB has seen good growth in their loan portfolio while at the same time their net interest margin has been improving, increasing net interest income, net income and earnings per share. However, your loan to deposit ratio and liquidity are declining rapidly. **The Examiners recently downgraded your liquidity rating and capital is at a low level to support growth. The Board of Directors has directed management to further grow earnings per share and net income, which can only be accomplished by growing the overall balance sheet with a focus on additional loan growth and the funding and capital needed to support this growth.**
- The Federal Reserve has signaled short-term rates will grow over the next 12-24 months. Inflation is rising. There is also a forecast for a recession and liquidity and capital will become even more important.
- How does ALCO manage the situation and keep TB independent.

Third Bank (TB) ALCO Scenario

CEO

CEO Focus – The new CEO is under some pressure to meet the demands of the board of directors to continue to grow earnings and earnings per share, like their predecessor accomplished before they retired. *If growth cannot be accomplished soon the board has discussed selling the Bank, or replacing the CEO, which will put them out of a prestigious job in the community.* While the CEO understands interest rate risk, they are more focused on the short-term need to grow. Institutional investors like to see growth which is driving community bank stock prices, and a better stock price will allow the bank to acquire other banks and remain independent. In the current market this can only be accomplished by booking longer-term fixed rate loans at close to and even below the prime rate, and/or by reducing credit standards related to borrowers, collateral and guarantor requirements. Deposit have become harder to gather and rates are beginning to rise rapidly in the marketplace. Liquidity is draining out of the system. It is also difficult to raise capital if a recession hits and non-performing loans grow. You and your team need a plan.

Third Bank (TB) ALCO Scenario

SLO

- Senior Lender Focus – Loan Growth is your primary measure of success, with asset quality a distant second. The bank has been able to grow during the past few tough years as many of the competitors were damaged with troubled loan portfolios. Now everyone is fighting for every loan, with 5, 10 and even 15 year fixed rate loans becoming the standard for commercial real estate, the banker's primary loan growth target. Lending mistakes from the last recession have long been forgotten in your markets. While rates for long term loans are low the bank has to be competitive to not only grow, but to keep your existing customers from leaving. You feel the need to be aggressive with rate, term and in more and more cases your loan policy standards. You think the CFO should find ways to fund the loan demand, and don't understand or care to understand the lower margins and accounting challenges they face providing you with long term funding. You are also doing more C&I lending, even though your bank has limited experience monitoring these business asset-based loans.

Third Bank (TB) ALCO Scenario

CDO

- CDO/Retail – You have worked hard to grow low-cost checking account balances, but you have several competitors that are beginning to advertise higher deposit rates and promotions to move accounts, and deposit growth has gone negative. New community bank and credit union branches have opened in several of your markets and are upsetting market pricing on your money market accounts and CDs. Your staff is asking for higher rates on your money market and CD accounts to retain existing rate-sensitive clients, they are making many rate exceptions to retain customers, and are asking for reduced fees on your commercial checking accounts. You have been told by the CEO you need to grow core deposits by \$100 million to meet your annual goals and bonus plan, and the CFO and ALCO Committee continue to set frustratingly low deposit rates to drive profits - which is impacting your growth. You need a plan.

Third Bank (TB) ALCO Scenario

CFO

- CFO Focus – While the CFO understands the need to grow, they also understand the risks the bank faces with its balance sheet position going into a potential recession. You will soon be low on cash and the loan pipeline remains strong. Are there funding options to offset the anticipated risk of taking on even more loans? You know you need to be careful about managing any increase in funding costs, which limits your ability to take down a high volume of longer term and more costly (yet available) wholesale funds from the FHLB. If loans grow and deposits/funding does not this could put some pressure on the balance sheet. Maybe now isn't the time to grow, but to retrench and focus on efficiency. Where will you get additional capital, and if you do raise capital to fund growth will your EPS rise or decline? You know your capital position is weak if loan losses materialize. The others look to you for wisdom.

Third Bank ALCO Agenda

- Historical and Trend Information
 - Current Financial Positions
 - Loan Portfolio
 - Deposit Portfolio
 - Investment Portfolio
 - Funding/Liquidity Position
 - Capital Position
 - Net Interest Margin History and Trend
 - Liquidity and Capital Stress Testing Results
 - Current Interest Rate Risk Position
 - Gap Analysis
 - Modeling Results
- Economic and Interest Rate Forecast
- Lending **Decisions/Recommendations**
 - Forecast net growth goals and pipeline
 - Rate/Loan Pricing targets
 - Actions to meet goals
- Deposit **Decisions/Recommendations**
 - Forecast net growth goals
 - Rates/Funds pricing
 - Actions to meet goals
- Treasury/Investment **Decisions/Recommendations**
 - Investment Maturities and Calls
 - Investment Actions
 - Wholesale funding Actions
 - Capital Actions
 - Hedging Activities

I. Historical - Financial Reports

- Net Interest Margin trends
 - Improving due to loan yields, focus on floating rate loans
 - Holding deposit costs down improved margin (unsustainable)
- Gap Analysis
 - More assets reprice in 90 days – 1 year, reverses after 1+ year range
 - Assets (loans and investment portfolio) reprice faster in first year
- Simulation Analysis Results
 - Rates rise 100 bp
 - Net Interest Income increases
 - Economic value equity (EVE) increases
 - Rates decline 100 bp
 - Net Interest Income declines
 - Economic value equity (EVE) declines

I. Historical and Trend Information

	For Quarters Ending			
	12/31/21	9/30/21	6/30/21	3/31/21
----- Assets -----				
Cash Items	49.695	49.616	49.108	46.083
Fed Funds Sold	8.911	55.247	103.423	104.537
Securities	24.687	24.751	24.793	34.823
Loans (Net)	680.210	646.999	628.500	591.517
Business	223.808	199.523	185.278	175.458
Real Estate	323.338	318.948	320.786	304.970
Consumer	139.934	135.063	128.785	117.064
Other	0	0	0	0
Loan Loss Reserve	-6.871	-6.535	-6.348	-5.975
Premises	15.504	15.492	15.484	15.479
Other Assets	40.048	40.397	41.369	39.980
Total Assets	819.054	832.502	862.677	832.420
--- Liabilities and Equity ---				
Total Deposits	719.843	734.188	763.936	734.556
Checking Accounts	233.925	227.735	215.481	200.037
Savings Accounts	246.924	270.451	304.883	291.049
Time Accounts	238.994	236.002	243.572	243.469
Certificates of Deposit	0	0	0	0
Borrowed Funds	0	0	0	0
Repurchase Agreements	0	0	0	0
Fed Funds Purchased	0	0	0	0
FHLB Borrowing	0	0	0	0
Other Liabilities	33.748	34.405	35.828	34.314
Capital Notes	0	0	0	0
Owners Equity	65.463	63.908	62.913	63.550
Total Liab & Equity	819.054	832.502	862.677	832.420
----- Ratios (%) -----				
Net Liquid Assets / Assets	1.09	6.64	11.99	13.76
Loans / Deposits	94.49	88.12	82.27	80.53
Non-Performing Loans / Loans	.61	.64	.67	.80
Charge-offs / Average Loans	.28	.36	.55	.64
Earning Asset / Total Assets	87.15	87.33	87.72	87.80
Core Deposits / Total Assets	87.89	88.19	88.55	88.24
Int Bear Liab / Total Assets	79.24	79.65	80.28	79.59
Borrowed Funds / Total Assets	0	0	0	0
Fed Funds Purch / Tot Capital	0	0	0	0
Owners Equity / Total Assets	7.99	7.68	7.29	7.63

2. Income Statement

	12/31/21	9/30/21	6/30/21	3/31/21
Interest Income	12.644	11.820	11.116	10.305
Loans	11.899	10.688	9.980	9.367
Business	4.346	3.411	2.952	2.633
Real Estate	5.119	5.020	4.942	4.789
Consumer	2.434	2.257	2.086	1.945
Other	0	0	0	0
Securities: Taxable Income	.106	.106	.106	.190
Securities: Tax-exempt Income	.141	.141	.141	.141
Federal Funds Sold	.498	.885	.889	.608
Interest Expense	4.239	4.328	4.595	4.583
Checking Accounts	.135	.128	.121	.112
Savings Accounts	1.144	1.201	1.366	1.320
Time Accounts	2.960	2.999	3.109	3.151
Certificates of Deposit	0	0	0	0
Borrowed Funds	0	0	0	0
FHLB Borrowing	0	0	0	0
Capital Notes	0	0	0	0
Net Interest on Swaps	0	0	0	0
Net Interest Income	8.405	7.492	6.520	5.723
Service Charges & Other Income	2.686	2.585	2.416	1.952
Loan Loss Provision	.791	.753	1.210	.727
Operating Expenses	7.478	7.497	7.818	7.054
Salaries and Benefits	5.419	5.467	5.804	5.035
Advertising - Promotion	.050	.050	.050	.100
Occupancy & Other Op. Expenses	2.009	1.980	1.965	1.919
Operating Earnings	2.823	1.828	-.092	-.107
Gains/Losses on Asset Sales	.284	.047	0	.719
Income Taxes	1.073	.630	-.077	.176
Net Income	2.033	1.245	-.015	.435
Earnings Per Share	.687	.420	-.005	.147
Interest Income/Earning Assets	7.02	6.37	5.98	5.70
Interest Expense/Int-bear Liab	2.59	2.56	2.71	2.80
Spread	4.43	3.82	3.27	2.90
Net Interest Inc/Earning Assets	4.67	4.04	3.51	3.17
Net Interest Inc/Total Assets	4.07	3.54	3.08	2.78
Operating Expense/Total Assets	3.62	3.54	3.69	3.43
Net Non-Int Exp/Total Assets	2.32	2.32	2.55	2.48
Operating Earning/Total Assets	1.37	.86	-.04	-.05
Net Income/Total Assets	.99	.59	-.01	.21
Net Income/Owners Equity	12.43	7.79	-.09	2.74

3. Repricing Gap

	Total 12/31		Estimated Interest Rate Sensitivity				
	Amt	Inc/Exp	1 Qtr	2 Qtr	3 & 4 Qtr	1-4 Qtr	Over 1 Year
==== Assets =====							
Federal Funds Sold	8.9	.5	8.9			8.9	
Securities (Book Value)	25.0	.2	0	0	0	0	25.0
Business Loans	223.8	4.3	223.8			223.8	
Real Estate Loans	323.3	5.1	30.6	25.4	44.0	100.0	223.3
Consumer Loans	139.9	2.4	23.7	21.3	18.8	63.8	76.1
Other Loans	0	0	0			0	
All Other Assets	98.4						98.4
Total	819.4	12.6	287.0	46.7	62.8	396.6	422.8
==== Liabilities and Equity =====							
Federal Funds Borrowed	0	0	0			0	
Repos	0	0	0			0	
FHLB Borrowing	0	0	0	0	0	0	0
Certificates of Deposit	0	0	0	0	0	0	
Checking and Savings *	480.8	1.3	220.5			220.5	260.4
Time Accounts	239.0	3.0	44.7	32.3	48.4	125.3	113.7
Capital Notes	0	0					0
Equity & Other Liabilities	99.2						99.2
Total	819.1	4.2	265.1	32.3	48.4	345.8	473.2
==== Summary Positions =====							
Net Balance Sheet Position (A - L)	8.4		21.9	14.5	14.4	50.7	-50.4
Fixed Rate Swaps	0		0	0	0	0	0
Variable Rate Swaps	0		0	0	0	0	0
Interest Rate Gap	8.4		21.9	14.5	14.4	50.7	-50.4
Interest Rate Gap / Assets (%)	1.0		2.7	1.8	1.8	6.2	-6.2

Deposits and Borrowings

• DDA	\$233,925,000
• Savings/MMDA	\$246,924,000
• CDs	<u>\$238,994,000</u>
• Total Deposits	\$719,843,000
• Borrowings	0

- What is our CD maturity schedule?
- Are over half of your Sav/MMDA not rate sensitive?
- What is deposit growth by type and price?
- What is new deposit growth costing?
- Where is the growth occurring?
- What are market rates for deposits?
- What are results from past deposit campaigns?

Managing Liquidity

	Beginning Balance	Deposits			Accrued Interest	Net Service Charges and Fees	Ending Balance
		New	Matured	With- drawals			
Business Checking	71.094	2.915		2.936		.251	70.823
Individual Checking	156.641	15.545		8.371	.135	.846	163.102
Individual Savings	270.451	10.303		34.875	1.144	.099	246.924
Time Accounts							
Variable Rate	15.920	0	4.605	0	.163		11.478
Fixed Rate	220.082	14.507	9.869	0	2.797		227.517
Total	734.188	43.270	14.475	46.182	4.239	1.197	719.843

Time Accounts Maturities						
	Next Quarter	Quarter Two	Quarter Three	Quarter Four	Over 1 Year	Total
Variable Rate	0	0	0	0	11.5	11.5
Fixed Rate	33.2	32.3	19.9	28.5	113.7	227.5
Total	33.2	32.3	19.9	28.5	125.1	239.0

Investments

• U.S. Treasury Bonds	\$10,000,000	\$9,687,000
• Municipal Bonds	<u>\$15,000,000</u>	<u>\$13,927,000</u>
• Total Investments (book)	\$25,000,000	
• Market Value		\$23,614,000
• Gain (loss) portfolio		(1,386,000)

- What is maturing or being called?
- Do we need the funds to meet other demands or should we reinvest?
- Any negative impact to capital if rates keep rising? (AOCI)
- What are our investment options in the market?
- Are we meeting our pledging needs?
- Are there gains to be harvested or losses to reposition?

Treasury Management

Source	Decision Amount	Current Quarter				Prior Quarter			Matured
		Available Amount	Available Rate (%)	Current Maturing	Current Balance	Decision Amount	Avail. Amount	Avail. Rate (%)	
Fed Funds Borrwd			6.13	0				4.83	0
Repos	-- -- --	10	5.75	0		0	10	4.63	0
CDs				0					0
1 Quarter	-- -- --	58	6.46		0	0	57	5.27	
2 Quarter	-- -- --	43	6.33		0	0	43	5.43	
3 Quarter	-- -- --	14	6.26		0	0	14	5.54	
4 Quarter	-- -- --	29	6.22			0	29	5.62	
			Maturity						Maturity Decision
FHLB Borrowing	-- -- --	130	-- --	0	0	0	119		0

--- Capital Notes and Common Stock ---

Decision Amount	Issue	Current Quarter			Prior Quarter	
		3 - 5 Million	6 - 10 Million	12 - 16 Million	Decision Amount	Price or Rate
	Capital Notes					
-- --	Interest Rate	6.19	6.18	6.20	0	
	Common Stock					
-- --	Price Per Share	19.14	19.25	19.30	0	

==== Dividends and Forecast Earnings =====

Dividends per Share:

-- -- --
.14

Earnings per Share, Forecast:

(Current Quarter: .69) -- -- --
.45

Treasury Management

	Beginning Balance	First Day Activity	Funds for Quarter		Ending Balance
			Provided	Used	
Securities (Book Value)	25.0	0			25.0
Loans (Net)	647.0	-8.9		42.1	680.2
Other Assets	105.5		.3		105.2
Repos	0	0			0
Corporate CDs	0	0			0
FHLB Borrowing	0	0			0
Customer Deposits	734.2			14.3	719.8
Other Liabilities	34.4			.7	33.7
Capital Notes	0	0			0
Owner's Equity	63.9	0	1.6		65.5
Net Position:	-55.0	-8.9	1.8	57.1	-8.6
Funds Positions					
Fed Funds Sold	55.2	63.7			8.9
Fed Funds Borrowed	0	0			0

Liquidity

• Fed Funds Sold	\$8,911,000	
• FHLB Borrowings	\$ 0	
• Fed Funds Purchased		\$ 0
• Investment Securities Maturing	0	
• Loan Funding Needs (+/-)		40,000,000
• Other Liquidity Needs		14,300,000
• FUNDING GROWTH NEEDED	\$45,389,000	

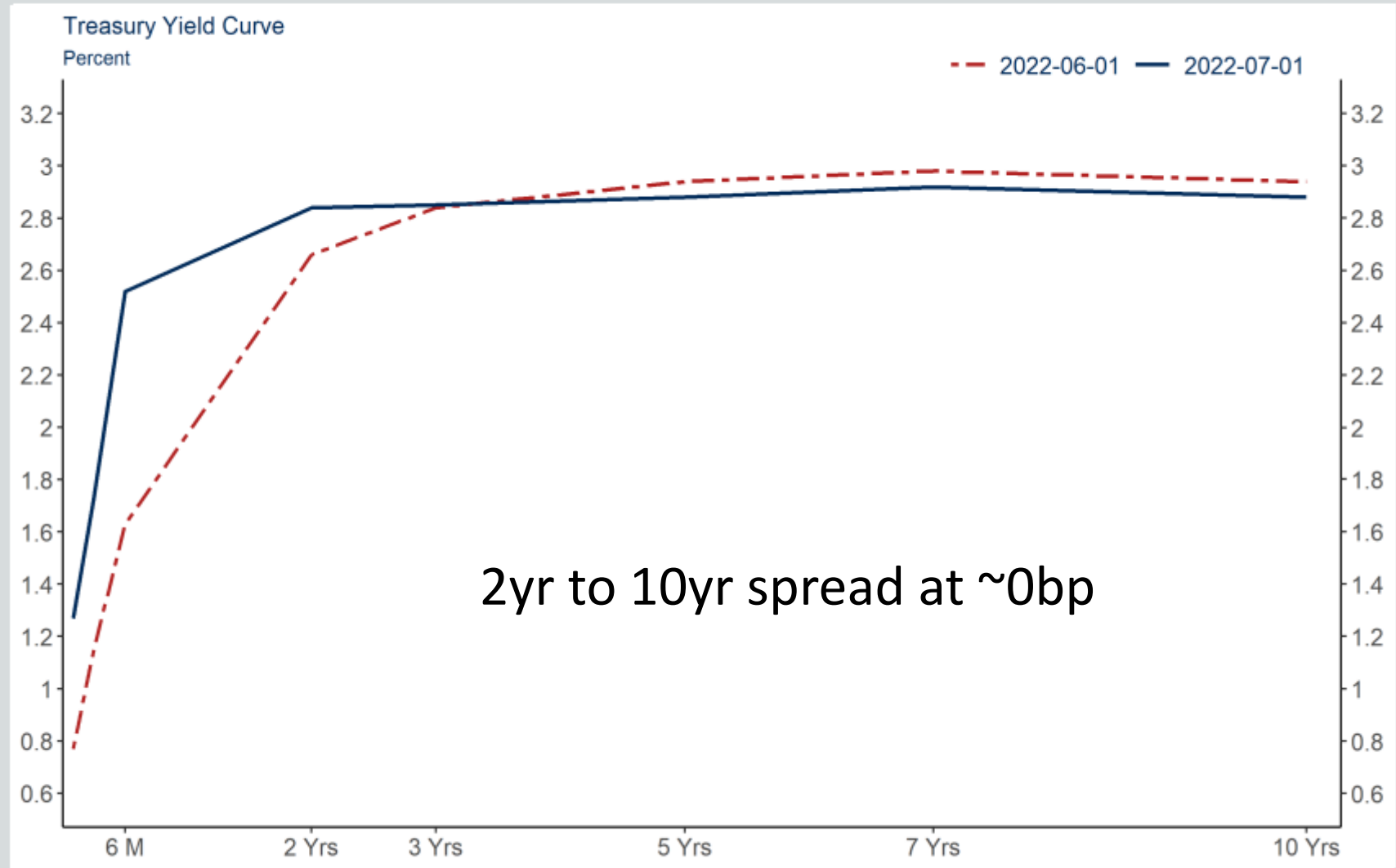
- What is our current liquidity position?
- What is our availability for asset-based liquidity:
 - Investment Portfolio AFS, can we sell without large losses, or pick up gains
- What is our availability for liability-based liquidity:
 - Fed Funds Lines
 - FHLB Borrowing Capacity
 - CDARS

II. Economic Briefing

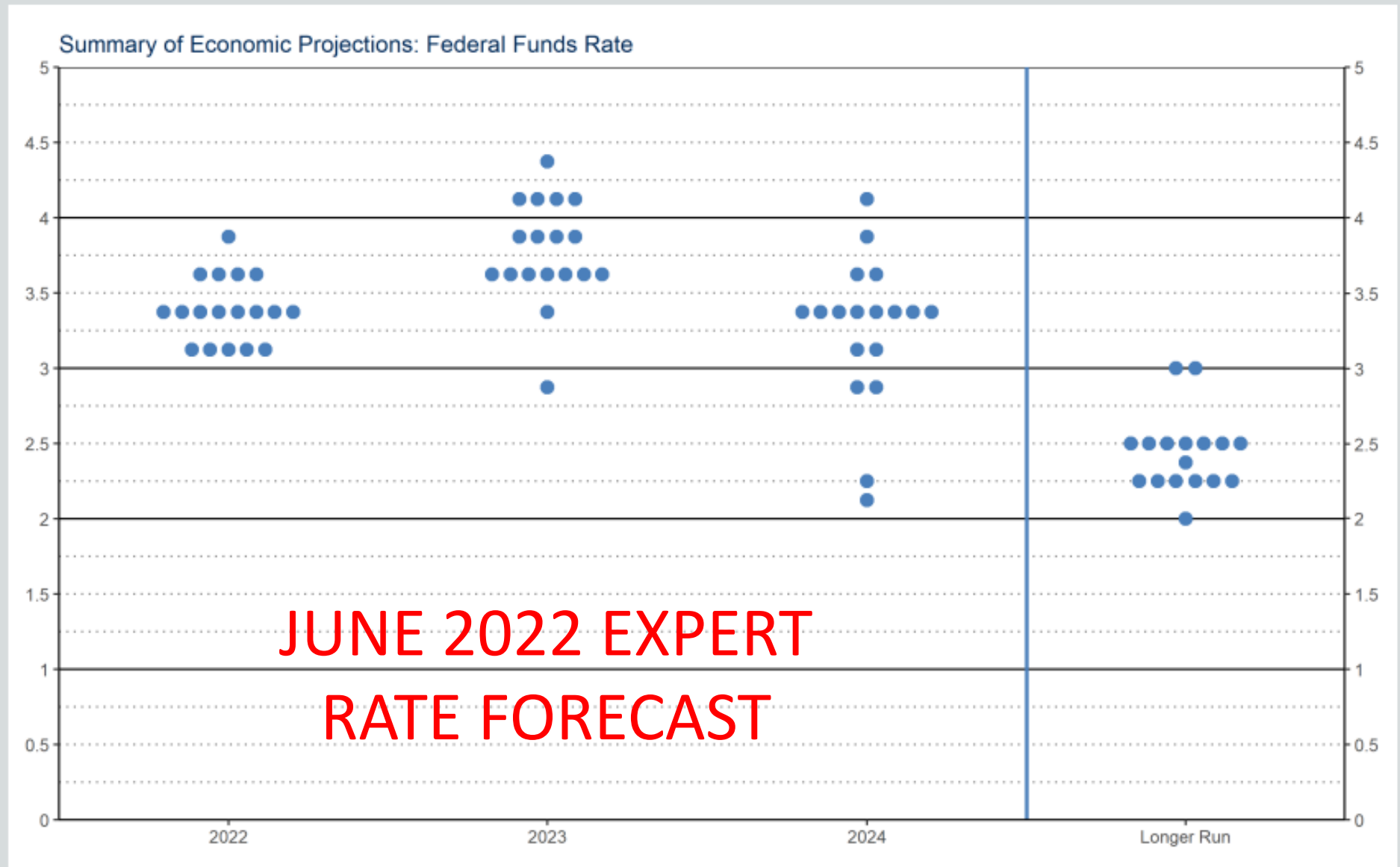
- Monetary Policy Expectations
- Yield Curve, Economic & rate forecast
- Yield curve strategies
 - Yield Curve and the FOMC
 - Flat/inverted curve – falling rates
 - Steep – rising rates
- Our local forecast

Yield Curve – July 1, 2022

Treasury Yield Curve



Summary of Economic Projections: Federal Funds Rate



**JUNE 2022 EXPERT
RATE FORECAST**

CEO Comments

- Set tone / strategy for team

III. Loan Decisions

- Forecast net growth goals and pipeline
 - Desire to grow by \$_____ million net in one year
 - Scheduled maturities of \$_____ million
 - We need to actually book \$_____ million / \$680 million
- Marketplace demands
- Rate/Loan Pricing targets – direction for team
- Actions to meet goals
 - Products, Pricing, Marketing, Markets: loan specials?
 - People and Incentives: Hiring, replacing, incenting?
 - IRR: borrow long to support additional IR term risk?
 - Changes to credit policy, risk appetite and tolerance?

IV. Deposit & Funding Decisions

- Forecast net growth goals
 - Need to support loan growth goals of \$_____ million
 - Need to maintain liquidity position of \$_____ million
 - Need to do at lowest possible cost
- Marketplace for deposits and funding
- Rates/Funds pricing - direction
- Actions to meet goals
 - Products, Pricing, Marketing : changes needed
 - People: Retail/Treasury sales/incentives?
 - Can we offer longer-term or step-up CD products?
 - Technology: Any changes needed to attract/retain depositors?

V. CFO/Treasurer Decisions

- Existing stress on liquidity and capital
- Investment Purchases and Sales
- Wholesale funding actions
- Capital Activity (raise capital, dividend policy)
- Actions to meet goals
 - What changes should we make to balance sheet to reduce exposure to interest rate risk? Hedging, rebalance?
 - What investment actions do we take?
 - Any need for wholesale/match funding?
 - Will asset growth trigger capital needs?, actions?
 - Will rising rates trigger capital loss from investments?

ALCO MEETING

- Take Aways / Feedback

Bank Exec Guest Spotlight

- Advice for rising 2nd year students
 - Lessons learned
 - What could you have done better?
 - Team dynamics?
 - Financial lightbulb go off?

TowneBank Classroom

University of Virginia

Darden School of Business



UNIVERSITY
of VIRGINIA

DARDEN SCHOOL
of BUSINESS

UPDATE

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- **Scott Hildenbrand** is a Managing Director and Head of Balance Sheet Analysis and Strategy in the Financial Services Group at Piper Sandler. He leads the Balance Sheet Analysis and Strategy Group, working with financial institutions on balance sheet strategy development, which includes interest rate management, investment portfolio strategy, retail and wholesale funding management, capital planning, budgeting, and stress testing. Hildenbrand also runs the Senior Hedging Services, LLC, which is registered as a swap introducing broker with the Commodity Futures Trading Commission and is a member of the National Futures Association. In his capacities, Hildenbrand works closely with the firm's Investment Banking Group to identify and develop strategic opportunities for clients involved in mergers and acquisitions. Previously, he was a Principal and Chief Balance Sheet Strategist at Sandler O'Neill & Partners, L.P. Prior thereto, Hildenbrand worked in Sandler O'Neill's Interest Rate Products Group, focusing on developing and implementing structured wholesale funding strategies for financial institutions. He spent his first four years at the firm in the Asset/Liability Management Group. Prior to joining Sandler O'Neill in 2004, Hildenbrand worked as a financial analyst in asset/liability management at Tower Federal Credit Union in Maryland. Hildenbrand serves as Treasurer on the Board of Directors for Liam's Room, a not-for-profit organization that focuses on pediatric palliative care, a specialized approach to medical care for children with serious illnesses. He is a frequent speaker at industry conferences and seminars. He holds an M.B.A. in finance from Loyola College in Maryland and a bachelor's degree with a concentration in accounting and finance from Gettysburg College.

IRR Management Guidance

- Internal IRR Policy with Board Policy risk limits
 - Limits on how much EAR and EVE at risk
- Primary Regulatory Guidance
 - 1996 – Joint Agency Policy Statement on Interest Rate Risk. Added the “S” to CAMEL
 - 2001 - Joint Agency Advisory on Rate-Sensitive Deposits
 - 2010 - Managing Sensitivity to Market Risk in a Challenging Interest Rate Environment
 - 2012 - Interest Rate Risk Management: Frequently Asked Questions

IRR Management

- Current Regulatory Focus
 - IRR Modeling and Assumptions
 - Data validation and back testing
 - Deposit shifts
 - Deposit betas
 - Loan pre-payment speeds
 - Other lines of business – Mortgage
 - Board Reporting
 - Audit/3rd Party Review
 - Policy

Stress Testing Makes you Stronger

- ALCO/IRR Simulation model
 - Stress Interest rate risk to earnings and Capital
- Other Stress Testing:
 - Liquidity / cash flow stress testing
 - Capital stress testing
 - Loan Portfolio (CRE,ADC)
 - Bond Portfolio (shock, values, capital impact)
- Large Bank Stress Testing – DFAST and CCAR

Our Goals

- A deeper understanding of bank financial statements & ratios
- Strategies that drives bank financial performance and growth (BS>IS>Capital)
- Understand the ALCO Management Process
- **Confidence with BankExec Capstone**
- Help with your assignment - Next

Bank Financial Management II

Asset Liability Management

Year 2

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