

# Navigating the Rapid Shift in Interest Rates

Saltmarsh BankTalk 2022

### Presenters



Chris Choate
Managing Director
Investment Banking

Chris Choate has 30 years of experience in advising financial institutions. He joined Raymond James in December 2004 and is involved in new business development, relationship management and investment banking transaction execution. His expertise in the financial institutions arena includes mergers and acquisitions, capital formation, strategic planning and other financial advisory services. Mr. Choate received a Bachelor of Science degree from the University of Virginia.



Chris Kornatowski Managing Director Asset/Liability Consulting

Chris Kornatowski joined Raymond James in 2011 as an interest rate risk derivatives specialist and now heads the Asset/Liability Consulting group, coordinating the firm's technological, consulting and strategy support related to client balance sheet risk. He has worked in the interest rate risk management field for over 20 years as a strategist and advisor to financial institution, municipal and corporate clients. Prior to joining Raymond James, Chris served as an independent advisor, served as Managing Director of Derivative Products at SunTrust Robinson Humphrey Capital Markets, and began his career at Barnett Banks, Inc. in the Business Investment & Hedging Services department.



Brian Nestor Managing Director Investment Banking

Brian Nestor has over 20 years of combined experience in investment banking and corporate law. Mr. Nestor first joined Raymond James in 2005 in the Financial Services Investment Banking Group. Mr. Nestor is active in mergers and acquisitions and public and private offerings of depository institutions. Mr. Nestor received his MBA degree, magna cum laude, from the University of Notre Dame Mendoza College of Business, a JD degree from the Notre Dame Law School and a bachelor's degree in finance from Florida State University.

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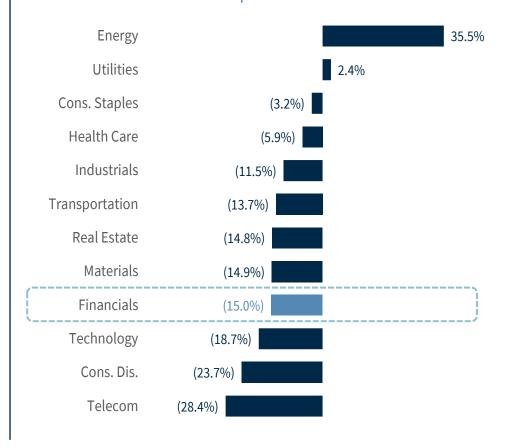
Balance Sheet Trends

# Industry Trends & Fundamentals

### Sector gained momentum in 2021

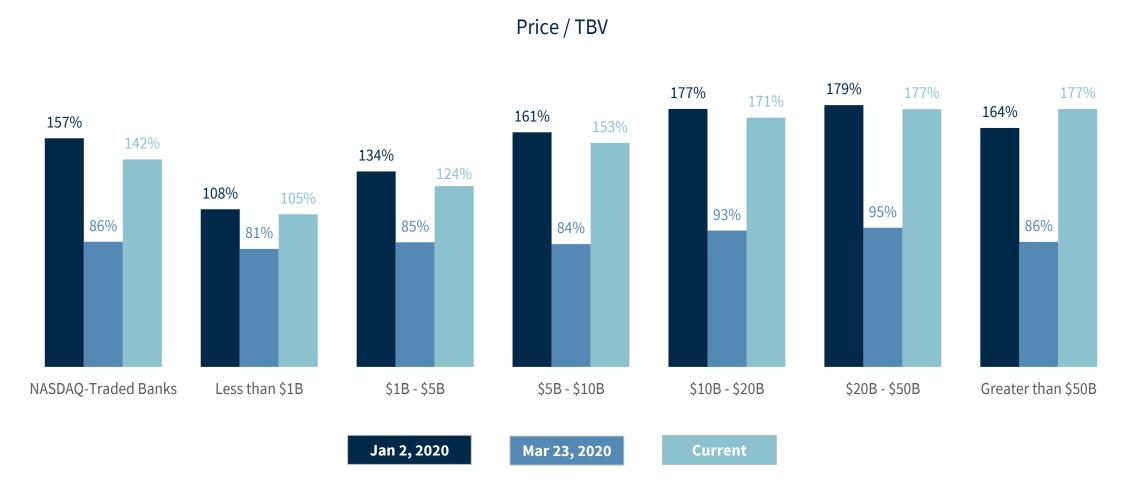


### 2022 YTD sector performance



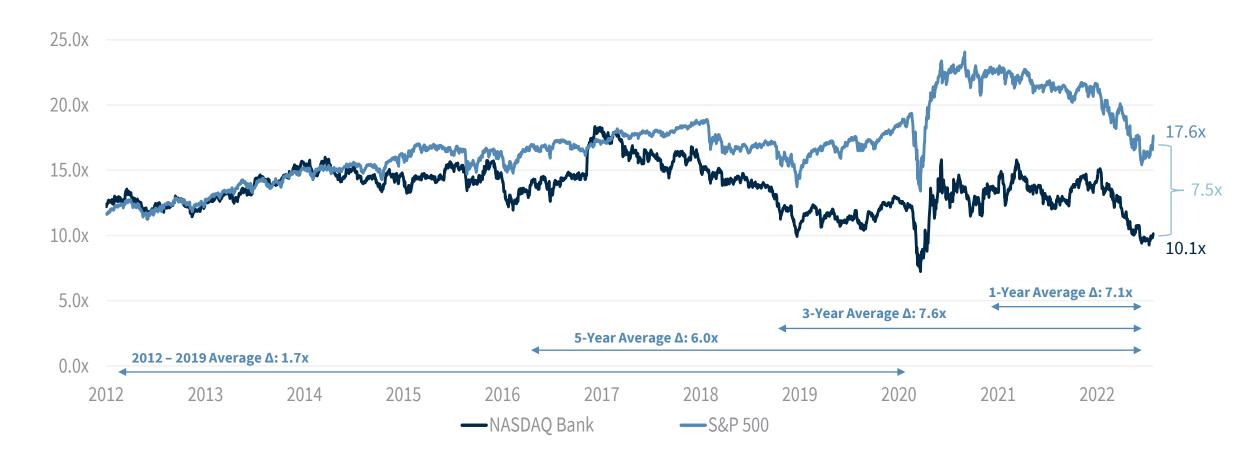
Note: Market data as of July 29, 2022 Source: Factset

### Valuations have bounced off bottoms



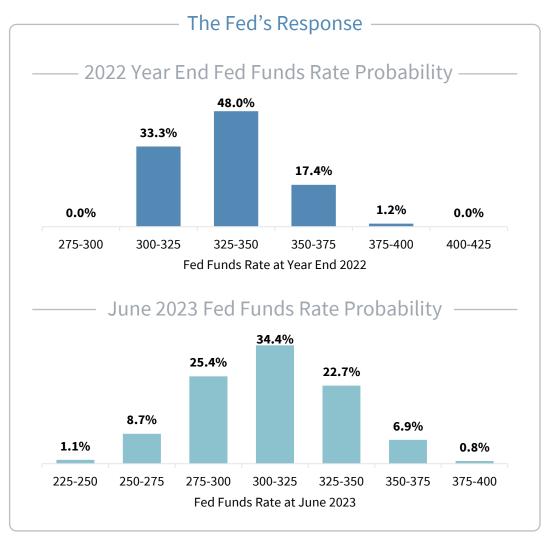
### Still room to run relative to the broader market

Consensus forward (NTM) earnings multiples since 2012



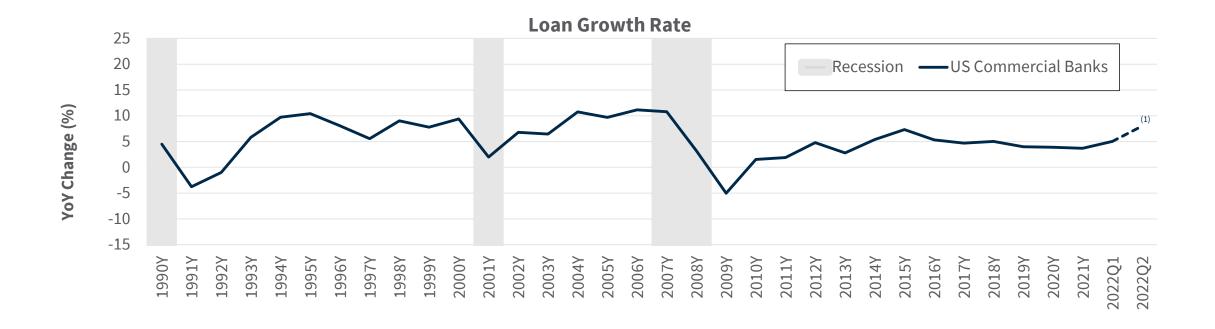
### Multiple rate hikes still likely





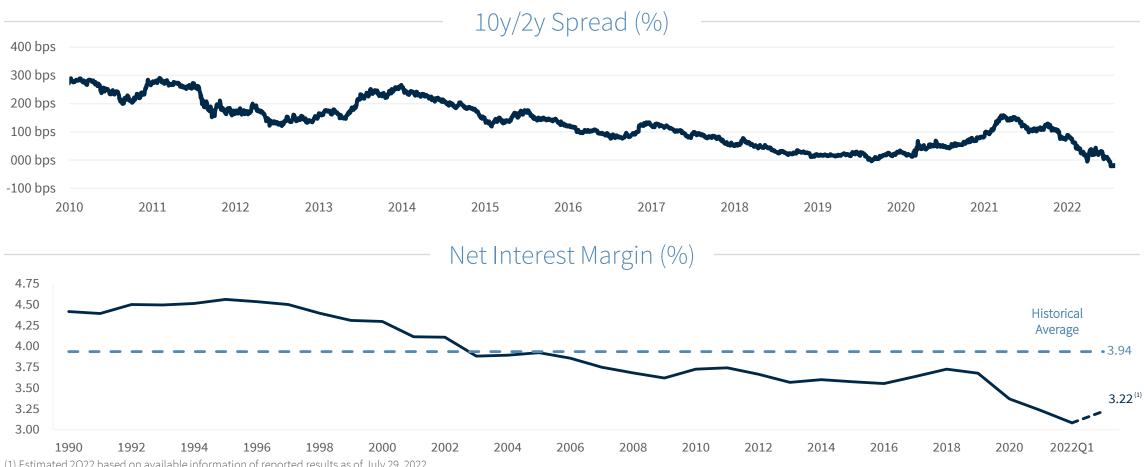
# Optimism on loan growth acceleration persisting for now

While inflation continues to march higher and political/economical concerns are rising, management teams remain positive



### NIM expansion in the second quarter

Rate hikes and strong loan growth are providing NIM expansion



### Deposit betas

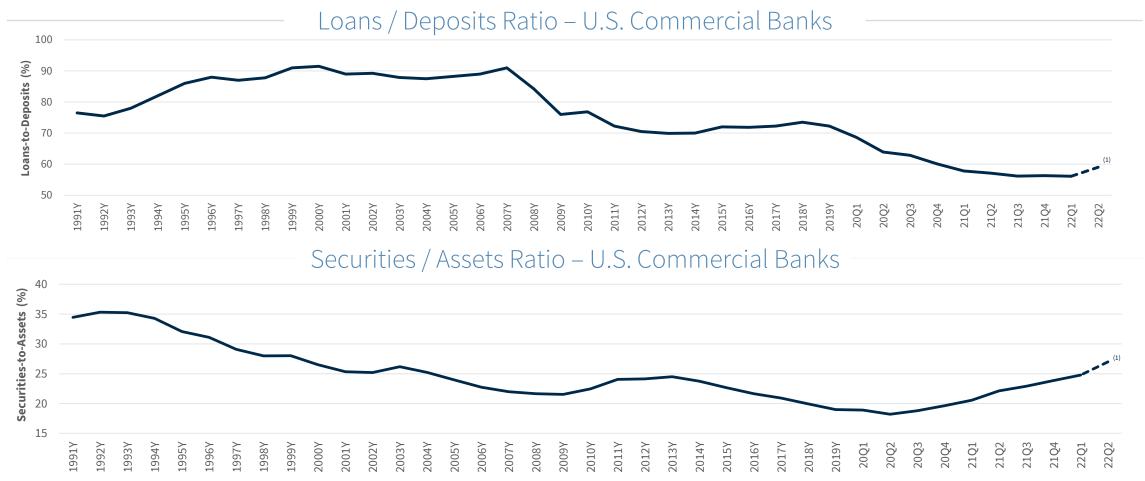
Looking forward, deposit betas will be closely watched given the anticipation of continued Fed action through year-end

— Deposit Betas – Current Cycle vs. Prior Cycles —

	Change in Fed		1		
	<b>Funds Rate</b>	Average	Median	Min	Max
4Q93 - 2Q95 Cycle	3.00%	25%	25%	3%	57%
1Q99 - 4Q00 Cycle	1.75%	43%	39%	-22%	209%
1Q04 - 2Q07 Cycle	4.25%	40%	39%	-16%	67%
3Q15 - 2Q19 Cycle	2.25%	25%	25%	-6%	64%
2Q21 - current Cycle	1.50%	1%	0%	-10%	26%

### Balance sheet shifts

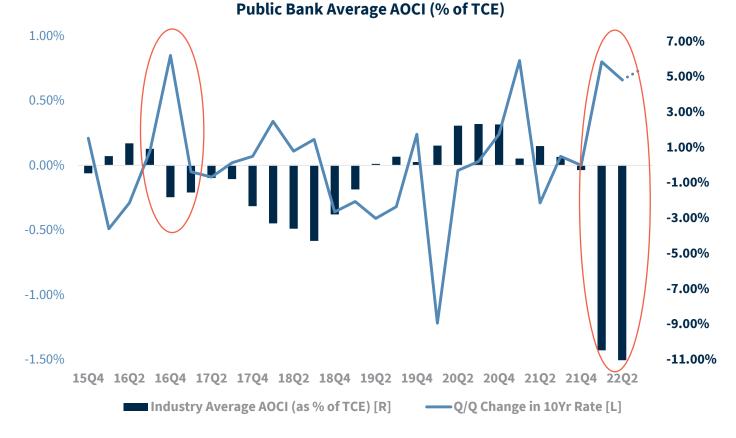
2Q22 has been the first quarter with deposit outflows and declines in securities investment portfolios



### AOCI marks impact on TCE

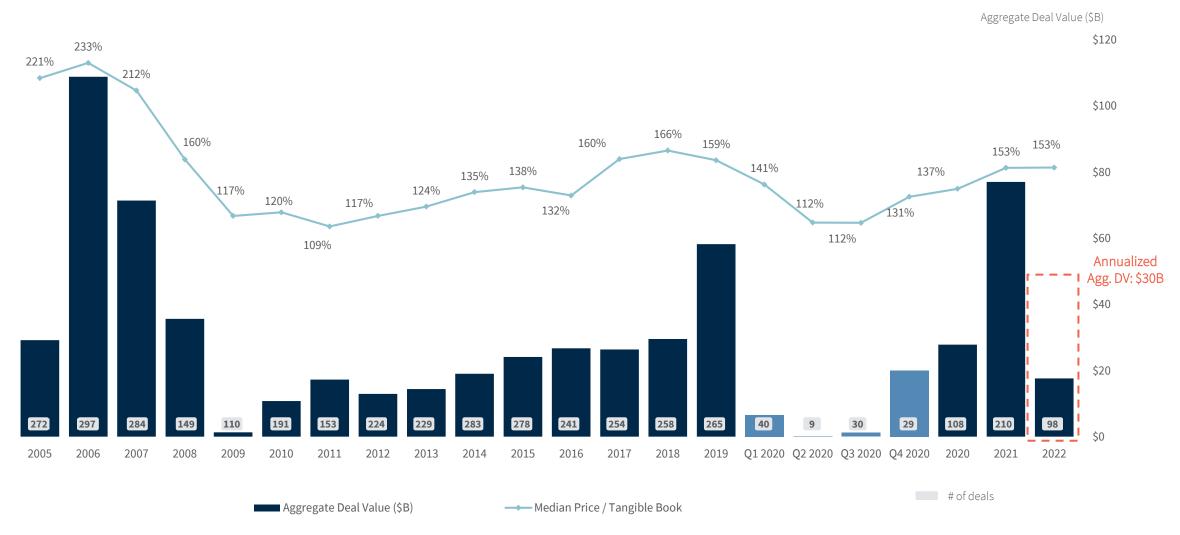
Many banks are seeing significant AOCI impacts from marking-to-market AFS securities, weighing on TCE ratio

As rates rise, bond prices go down and for banks that hold securities balances (available for sale, AFS), this can lead to negative equity adjustments through AOCI in periods of rising interest rates



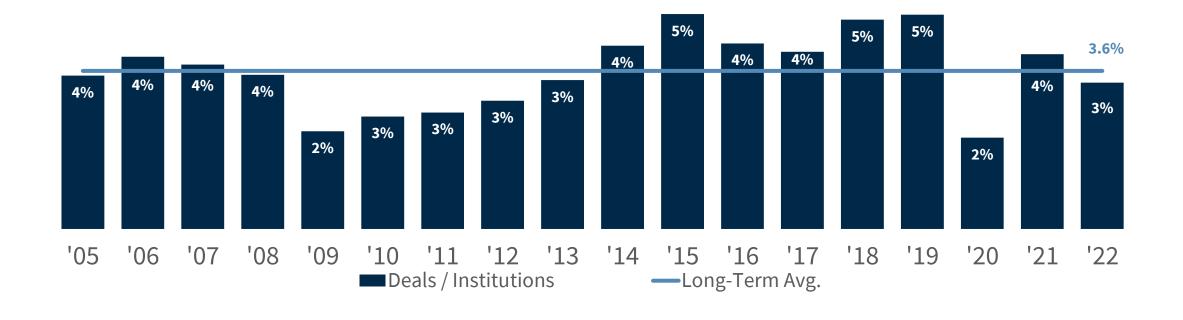
# M&A Update

### M&A activity rebounded from COVID, but currently stalled



### Consolidation continues to be a major industry theme

Activity levels are expected to improve as the public valuation framework has become highly conductive to M&A



Note: 2022 data shows annualized figures; includes all U.S. depository M&A deals; excludes terminated deals; data as of July 29, 2022

Source: S&P Capital IQ Pro

### Post-crisis pricing tightly correlated with the market

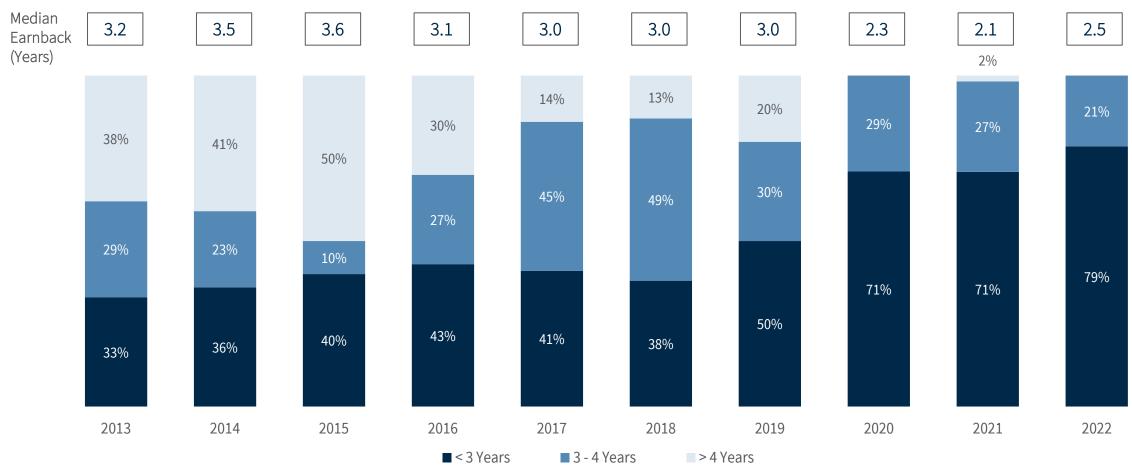
### Transaction pricing vs. market pricing

Median Transaction P/TBV to Buyer's P/TBV Ratio



# Buyers are maintaining discipline – defending TBV

Buyers remain focused on earnback – fewer 3+ year transactions

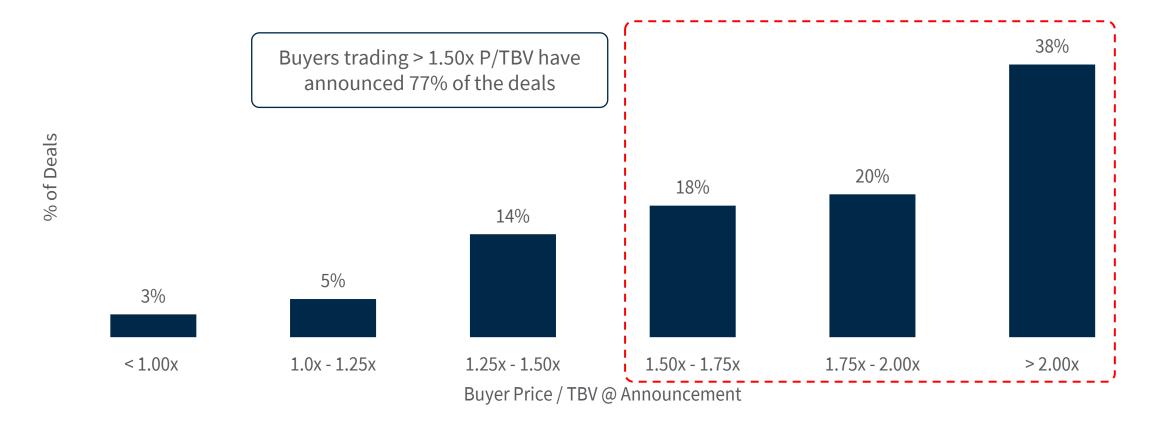


Note: Includes transactions with announced deal values greater than \$100 million where buyer was publicly-traded and disclosed TBVPS earnback period; data as of July 29, 2022

Source: S&P Capital IO Pro

### Strong currencies often prevail

Nationwide M&A transactions since 2016 with deal value greater than \$50 million



# Interest Rates Shift | Case Study

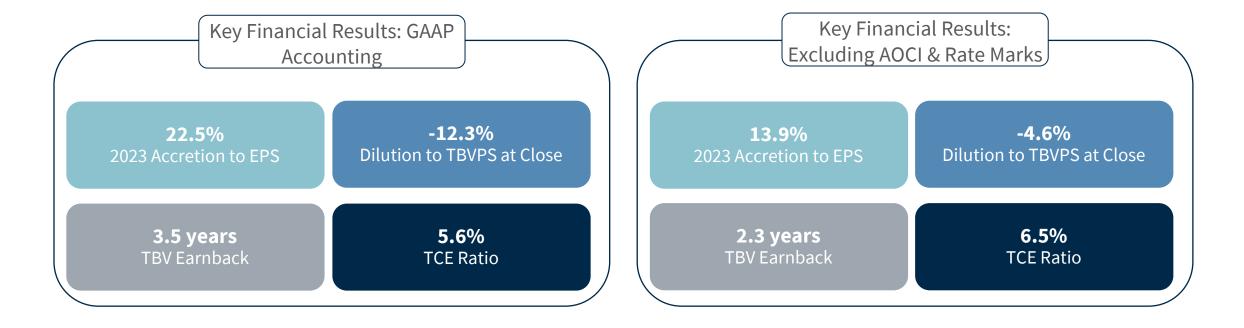
# Interest Rates Impact on Buyer / Seller Stand Alone

(\$M, except per share data)	Buyer		Seller	
<b>Pricing Information</b>	2021Y	2022Q2	2021Y	2022 <b>Q</b> 2
Stock Price	\$15.00	\$15.00	\$5.00	\$5.00
Shares Outstanding	100	100	100	100
Price / TBVPS	196%	217%	122%	169%
Price / TBVPS ( exl. AOCI)	200%	182%	125%	115%
Price / NTM EPS		15.0x		10.0x
Standalone Assumptions				
AOCI deterioration in 1H22		-10.0%		-15.0%
Loan & Deposits Growth		5.0%		5.0%
<b>Balance Sheet</b>	2021Y	2022Q2	2021Y	2022Q2
Securities AFS	1,500	1,350	1,000	850
Securities HTM	150	150	100	100
Other Assets	8,350	8,550	 3,900	4,065
Total Assets	\$ 10,000 \$	10,050	\$ 5,000 \$	5,015
Total Liabilities	\$ 8,485 \$	8,635	\$ 4,440 \$	4,580
Common Equity	900	900	300	300
Retained Earnings	600	650	250	275
AOCI	15	(135)	10	(140)
Total Equity	\$ 1,515 \$	1,415	\$ 560 \$	435
Total Liabilities & Equity	\$ 10,000 \$	10,050	\$ 5,000 \$	5,015
TCE Ratio	 8.3%	7.4%	 8.5%	6.1%
TCE Ratio (excl. AOCI)	 8.1%	8.8%	 8.2%	8.9%

### Interest Rates Impact on Pro Forma Analysis

#### **Interest Rate Mark Assumptions**

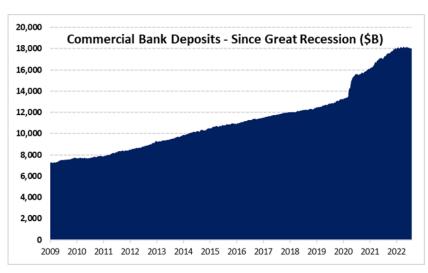
- Purchase price: \$6.00 / 100% Stock Consideration
- Securities Mark-Down: 7.5% on Securities AFS | Amortized SL over 7 yrs
- Loan Interest Rate Mark-Down: 1.50% on Loans | Amortized SL over 4 yrs
- AOCI amortization SL over 7yrs

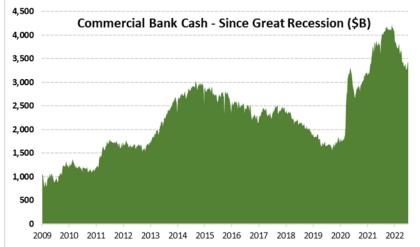


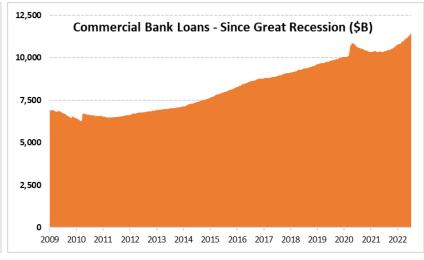
# Balance Sheet Trends

# Bank Balance Sheets Beginning to "Normalize"?

- \$5T pandemic-driven deposit surge has leveled off
- 1/3 of industry's \$2.4T cash accumulation has been drawn down
- Organic loan growth has returned after PPP spike has run its course

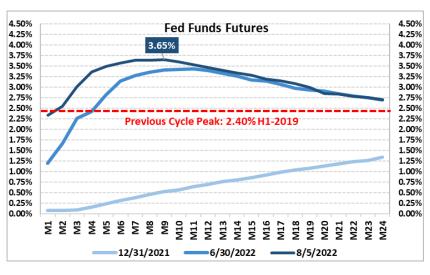


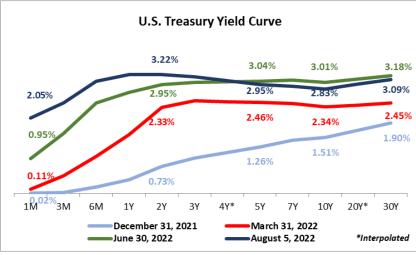


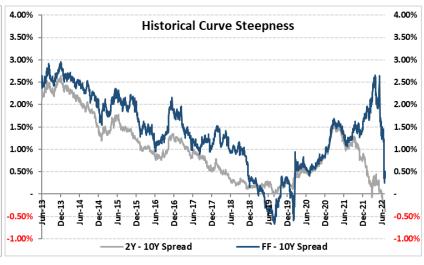


### Nothing Normal About Rate Environment

- Peak Fed Funds rate of 3.65% projected in April 2023 (On June 14, peak was projected at 4.05%)
- U.S. Treasury Curve has exhibited "Bear Flattening" this year
- 10Y Treasury plummeted almost 100 BPs from June peak (3.48%) to August trough (2.58%); 2.86% yield as of Aug 5
- Treasury Yield Curve inversion predictive of oncoming recession







### Asset/Liability Sensitivity: RJ ALM Clients

- Asset sensitivity peaked and investment average (including IB balances) life bottomed out in quarter ended 12/31/2020
- 66% of RJ clients remain asset sensitive re: Net Interest Income (Static Balance Sheet)
- Year 2 NII asset sensitivity should be monitored vis a vis recession risk / reversal of current rate cycle

	Y1 NII – Avg % Chg from Base +300 Basis Point Shock	Y2 NII – Avg % Chg from Base +300 Basis Point Shock	EVE (NEV) – Avg % Chg from Base +300 Basis Point Shock	Weighted Average Life Investment Assets (Years)
12/31/2019	5.23%	12.94%	-1.64%	2.77
3/31/2020	6.25%	14.98%	1.96%	2.59
6/30/2020	7.14%	16.73%	7.40%	2.41
9/30/2020	8.32%	19.09%	8.10%	2.64
12/31/2020	28.65%	31.99%	14.12%	1.47
3/31/2021	11.63%	21.81%	4.58%	3.47
6/30/21	10.07%	27.44%	1.26%	3.43
9/30/21	9.64%	19.52%	-0.29%	3.64
12/31/21	9.10%	18.81%	-1.33%	3.78
3/31/22	6.73%	15.26%	-3.60%	4.99
6/30/22	3.83%	12.06%	-5.45%	5.75

### Asset/Liability Sensitivity: OCC IR Statistics Report

• The OCC has begun publishing a periodic *Interest Rate Risk Statistics Report* wherein IRR (ALM) results, assumptions, and policies are reported for community-based financial institutions.

#### **Earnings at Risk Results (Net Interest Income)**

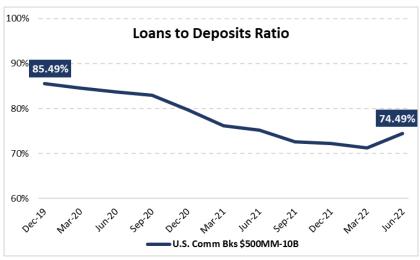
	Table 1a: All Banks – Earnings at Risk: 12-Month, Net Interest Income, Parallel Shocks								
Scenario	Largest loss	25th percentile	Median	75th percentile	Largest gain				
-100	-13%	-5%	-3%	-1%	7%				
+100	-5%	1%	4%	7%	42%				
+200	-10%	2%	7%	14%	80%				
+300	-16%	2%	10%	21%	99%				
+400	-23%	0%	11%	25%	115%				

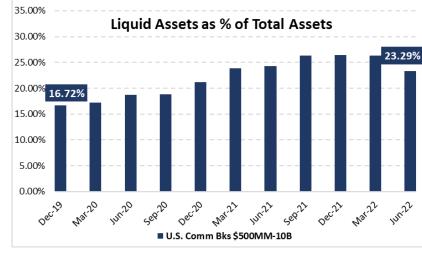
#### **Economic Value at Risk Results (EVE)**

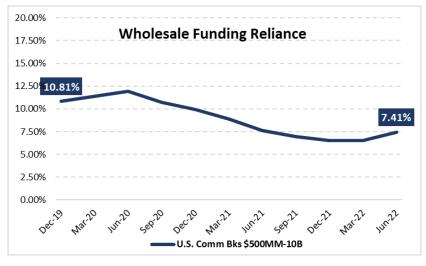
	Table 1b: All Banks – Economic Value of Equity, Parallel Shocks							
Scenario	Largest loss	25th percentile	Median	75th percentile	Largest gain			
-100	<del>-4</del> 5%	-11%	-1%	5%	21%			
+100	-13%	-2%	2%	9%	33%			
+200	-28%	-6%	2%	14%	56%			
+300	-43%	-11%	2%	18%	76%			
+400	<del>-</del> 61%	-17%	1%	22%	93%			

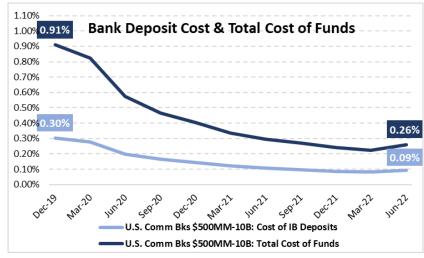
# Industry Liquidity & Funding Demand

 Historically low LTD ratios, strong liquidity, and contingency funding capacity have resulted in only slight increase in industry funding costs (so far!)





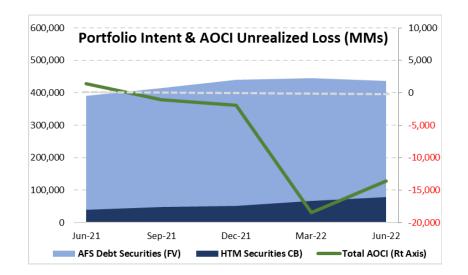




### Unrealized AFS Portfolio Losses

#### **Case Study**

- \$880MM Asset Commercial Bank
- \$282MM Portfolio Par (100% AFS)
- 5.98 Year Average Life / 3.93 Effective Duration
- -\$20.7MM (-7.1%) Unrealized Loss as of 6/30



#### Portfolio Summary

				Port	Book	Book	Market	Market	Gain/(L	oss)	_	Effe	ctive	AFS
Sector	Coupon	Maturity	Par (000s)	%	Price	Yield	Price	Yield	\$ (000s)	%	WAL	Dur	Cvx	%
Fixed MBS (27)	2.20	19.0 yrs	24,542	8.7	103.36	1.59	91.61	3.70	-2,884.7	-11.4	6.66	5.12	-0.19	100
Floating MBS (1)	2.09	19.6 yrs	26	0.0	104.20	3.72	101.72	4.31	-0.6	-2.4	4.80	1.61	-0.13	100
CMO (13)	2.00	44.3 yrs	6,647	2.4	104.37	1.32	99.83	3.09	-301.9	-4.4	3.51	1.35	-0.05	100
Municipal (73)	4.00	16.1 yrs	84,243	29.9	109.25	2.98	100.20	4.27	-7,620.7	-8.3	9.80	6.73	-0.32	100
Corporate (13)	2.51	3.8 yrs	16,000	5.7	100.08	2.50	94.86	4.22	-835.9	-5.2	3.76	2.81	0.06	100
Other (120)	2.57	18.3 yrs	150,251	53.3	101.23	2.47	95.20	4.55	-9,068.2	-6.0	3.91	2.32	0.06	100
Total (247)	2.95	17.5 yrs	281,709	100.0	103.82	2.53	96.47	4.34	-20,712.1	-7.1	5.98	3.93	-0.08	100

<sup>\* &</sup>quot;Other" includes Fixed SBA, Floating SBA, CMBS, ABS

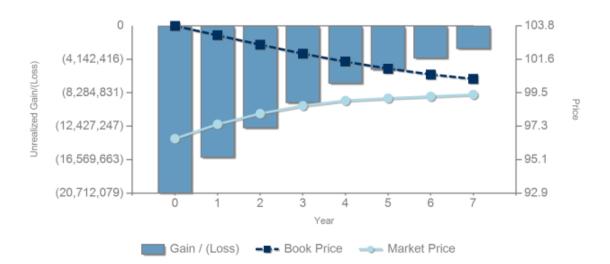
• Critical for Management and Board to understand the relationship between unrealized losses, income, capital and time

### Unrealized Portfolio Losses Are Temporary

- Barring payment default, bonds are redeemed at par on the maturity date (or earlier, in the event of a call exercise)
- Thus, the book price and market price of a bond
   and the overall value of a static portfolio will
   "converge" to par over time
- Assuming flat interest rates ("Base Case"), the unrealized -\$20.7MM loss in the example dissipates at an annual rate of over 20% of the remaining loss
- Further analysis can be performed to project the "convergence" rate in various rate scenarios

#### **Unrealized Gain/(Loss) Remaining**

#### BaseCase



	DITT	<u> </u>
YEAR	G/L (\$)	G/L (%)
0	(10,253,930)	-3.51%
1	(7,476,449)	-2.56%
2	(5,332,426)	-1.82%
3	(3,629,414)	-1.24%
4	(2,473,339)	-0.85%
5	(1,744,585)	-0.60%

Dn100

<u>BaseCase</u>				
G/L (\$)	G/L (%)			
(20,712,079) (16,323,908) (12,664,851) (9,544,415) (7,152,455)	-7.08% -5.58% -4.33% -3.26% -2.45%			
(5,445,481)	-1.86%			

<u>Up1</u>	<u>Up100</u>		
G/L (\$)	G/L (%)		
(31,606,258)	-10.81%		
(25,769,585)	-8.81%		
(20,767,066)	-7.10%		
(16,397,868)	-5.61%		
(12,895,371)	-4.41%		
(10,280,248)	-3.51%		

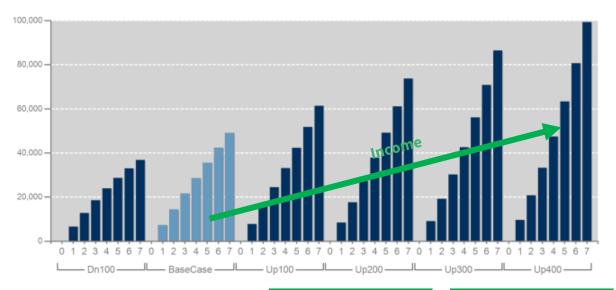
TM

### Portfolio Income is Permanent

pCR TM

- Portfolio Income is a significant contributor to many banks' Interest Income (~20% for the Case Study institution)...
- ... and is a source of *permanent* Capital
- Despite accruing unrealized (temporary) losses with rising rates, most portfolios produce incremental (permanent) income as rates move higher

#### Cumulative Income (\$)



	ווט	100
YEAR	Income (\$)	Income (%)
1	6,595,506	2.26%
2	12,784,286	2.16%
3	18,620,873	2.08%
4	23,950,338	1.99%
5	28,685,002	1.89%

Dn100

Bas	<u>BaseCase</u>					
Income (\$)	Income (%)					
7,253,347	2.48%					
14,439,369	2.44%					
21,587,710	2.40%					
28,624,367	2.36%					
35,515,455	2.32%					

<u>Up100</u>				
Income (\$)	Income (%)			
7,872,467	2.69%			
16,031,574	2.70%			
24,476,335	2.72%			
33,228,762	2.73%			
42,342,517	2.74%			

### Price Volatility Dissipates Over Time

pCR TM

- The potential for future losses on a security or a static portfolio of securities ("price volatility") also dissipates over time
- Assuming an (incremental) interest rate shock of +300 BPs, the example portfolio has price volatility equal to -11.99% --- slightly less than the equivalent price volatility of a 5Y Treasury security
- One year from now, price volatility for the +300 BPs shock scenario declines to -10.47% ... and so on

#### **Price Volatility Remaining**



YEAR	Dn200	Dn100	BaseCase	Up100	Up200	Up300	Up400
0	7.56%	3.85%	0.00%	-4.01%	-8.00%	-11.99%	-15.65%
1	6.23%	3.22%	0.00%	-3.44%	-6.93%	-10.47%	-13.71%
2	5.05%	2.65%	0.00%	-2.93%	-5.96%	-9.10%	-11.98%
3	3.98%	2.12%	0.00%	-2.47%	-5.08%	-7.85%	-10.40%
4	3.07%	1.67%	0.00%	-2.06%	-4.30%	-6.76%	-9.04%
5	2.37%	1.32%	0.00%	-1.73%	-3.68%	-5.88%	-7.97%

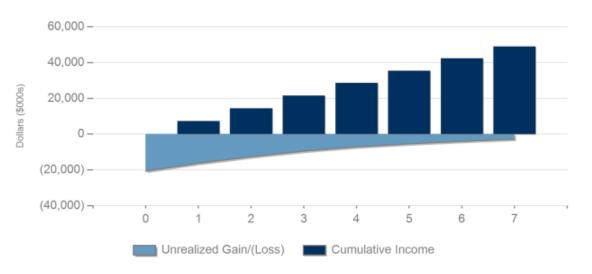
### The Complete Picture

- Analyzing the combined impact of par convergence (dissipation of losses) along with projected cumulative income provides a more complete view of the relationship between unrealized losses, income, and time
- Assuming flat interest rates ("Base Case"), the example portfolio produces Year 1 Income of \$7.2MM and unrealized loss reduction of \$4.4MM... \$11.6MM total.



#### Income vs. Unrealized Gain/(Loss)

#### Base Case



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YEAR	Income	G/L (\$)
0	0	(10,253,930)
1	6,595,506	(7,476,449)
2	12,784,286	(5,332,426)
3	18,620,873	(3,629,414)
4	23,950,338	(2,473,339)
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LIn100

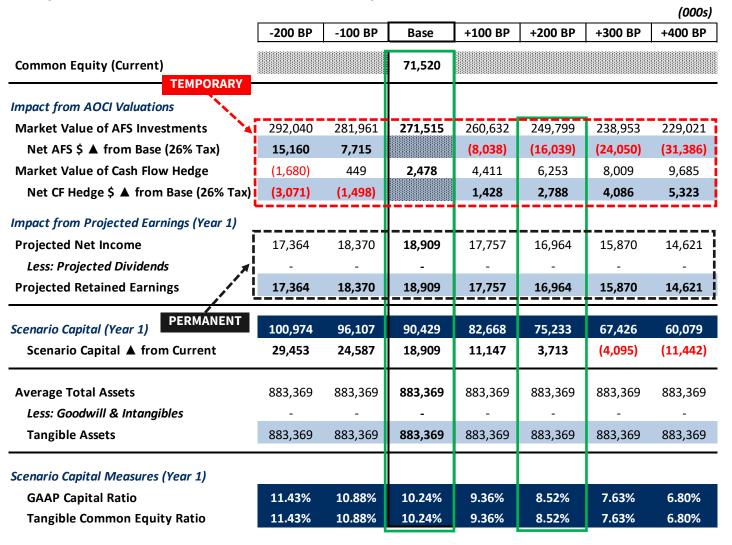
### Unrealized AFS Loss – Impact on GAAP Capital

- Most community banks have elected the Basel III opt-out which excludes AFS unrealized gain/loss for regulatory capital... however economic (GAAP) capital is still impacted
- -\$20.7MM Unrealized AFS Loss results in aftertax AOCI Impact of -\$15.3MM for the Bank in the example
- Current Unrealized AFS Loss is already reflected in current Equity Capital of 71.52MM and Common Equity / Assets of 8.10%
- Further rate increases would continue to negatively impact the AFS market-to-market and AOCI...
- ...<u>but the impact of additional AFS losses cannot</u> be viewed in isolation

				_			(000s)
	-200 BP	-100 BP	Base	+100 BP	+200 BP	+300 BP	+400 BP
Common Equity (Current)			71,520				
Capital Impact from AOCI Valuations							
Market Value of AFS Investments	292,040	281,961	271,515	260,632	249,799	238,953	229,021
Net AFS \$ ▲ from Base (26% Tax)	15,160	7,715		(8,038)	(16,039)	(24,050)	(31,386)
Scenario Capital	86,681	79,236	71,520	63,483	55,481	47,470	40,134
Scenario Capital ▲ from Current	15,160	7,715	-	(8,038)	(16,039)	(24,050)	(31,386)
Average Total Assets  Less: Goodwill & Intangibles	883,369 -	883,369 -	883,369	883,369 -	883,369 -	883,369 -	883,369 -
Tangible Assets	883,369	883,369	883,369	883,369	883,369	883,369	883,369
Scenario Capital Measures (Year 1)							
GAAP Capital Ratio	9.81%	8.97%	8.10%	7.19%	6.28%	5.37%	4.54%
Tangible Common Equity Ratio	9.81%	8.97%	8.10%	7.19%	6.28%	5.37%	4.54%

### Unrealized AFS Loss – Impact on GAAP Capital

- For proper context, other interest rate sensitive components of Capital need to be incorporated into the analysis
- In the case study, flat rates (Base Case) and a static balance sheet are projected to produce \$18.9MM of <u>permanent</u> earnings over a 1-year horizon (assumes current NIM of 3.17%)
- The case study bank also has a ~\$60MM hedge on variable rate funding
- As rates rise, certain hedging instruments –
   Cash Flow Hedges accrue unrealized gains to partially offset unrealized losses in AFS



### AFS to HTM Transfer: A Potentially Costly Strategy

- AFS securities transferred to HTM status will avoid the impact of <u>future</u> market value changes on Equity (AOCI)...
- ...However, there are several disadvantages to this strategy which may argue for another approach

Disadvantages	Alternatives		
Unrealized losses to date remain in AOCI	Transfer only the most illiquid bonds (non-rated, hard to price)		
Ability to realize loss recovery / gains is forfeited	Adapt portfolio strategy to manage duration / price risk		
Ability to sell HTM bonds is impaired	Create watch list for sale of "worst offenders"		
Liquidity and portfolio strategy becomes limited	Employ derivatives to hedge individual securities or pools		
Sale of HTM bonds will inhibit future use of HTM intent	Schedule professional portfolio review for best approach		

• Institutions considering this strategy should review FASB ASC 320-10-35-10 and consult with their accountants

### Strategy Themes

#### Loans

- Hedge longer term commercial loans (5 years+) in order to meet borrower demand while managing rate risk
- Embed interest rate floors in new variable rate loans; prepayment penalties in new fixed rate loans

#### **Bond Portfolio**

- Layer in shorter duration bond positions to reduce overall portfolio price volatility; OR
- Layer in longer duration bond positions to lock-in rate increases, improve overall portfolio yield, and hedge recession risk
- Add positive convexity via bullet or prepay-protected structures: Treasuries, Agency bullets, Agency CMBS
- Exploit credit spread widening to enhance portfolio yield: High grade corporates, taxable/tax-free municipals

#### **Funding**

- Targeted rate specials: Need to understand local competitive market as well as internet market
- Consider wholesale funding vs. across the board deposit rate increases to fill funding shortfalls
- Embed call options (bank option) in Brokered CD issuances

#### **Derivatives**

- Fixed-to-Float swaps on fixed rate mortgage, MBS, municipal bond pools
- Hedge program (Fixed-to-Float swap or Back-to-Back swap) for newly originated commercial loans
- Hedge variable rate or rolling, short-term wholesale funding to achieve most attractive cost of term funding

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