

Saltmarsh Executive Forum & Bank Talk

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STIFEL | Fixed Income Strategy

- ***Current Earnings Trends and Balance Sheet Sensitivity***
 - Economic Commentary
 - Liability Rationalization
 - Excess Liquidity – Putting Cash to Work
 - Protecting TBV in Future Rate Environment – HTM Utilization / Hedging
-

Conference Attendees – Balance Sheet and Earnings Trends

Balance Sheet Trends

- Cash balances continue to grow as the industry grapples with excess liquidity
- As loan growth has slowed, banks have shifted allocations to the securities portfolio, with securities to assets at 15.68% as of 2Q21
- While HTM utilization is still well below 10%, banks are beginning to put more of their securities into HTM

Quarter	Cash / Assets	Securities / Assets	Loans / Deposits	Borrowings / Liabilities	HTM %	AFS %
2020Q3	8.20%	12.53%	90.84%	7.16%	6.8%	93.2%
2020Q4	8.61%	13.61%	87.68%	5.62%	6.9%	93.1%
2021Q1	10.03%	14.27%	84.07%	4.82%	6.8%	93.2%
2021Q2	10.28%	15.68%	81.27%	3.81%	7.6%	92.4%

Earnings and Profitability

- Cost of funds has decreased as costly liabilities roll off the balance sheet and as banks pay down borrowings
- Net interest margins have slightly decreased as yields on securities and loans have compressed

Quarter	Net Interest Margin	Yield on Securities	Yield on Loans	Efficiency Ratio	ROAA	ROAE	Cost of Funds
2020Q3	3.30%	2.12%	4.37%	57.40%	0.82%	8.1%	0.48%
2020Q4	3.48%	2.01%	4.57%	58.62%	1.27%	12.0%	0.41%
2021Q1	3.35%	1.94%	4.40%	57.04%	1.39%	13.3%	0.32%
2021Q2	3.32%	1.86%	4.41%	57.61%	1.39%	13.5%	0.28%

Capital Metrics

- Banks continue to be well capitalized with total capital exceeding 14%

Quarter	Tier 1 Leverage	Tier 1 Common Capital (CET1)	Tier 1 Capital	Total Capital	TCE/TA
2020Q3	9.54%	12.98%	13.01%	14.15%	9.31%
2020Q4	9.57%	13.07%	13.09%	14.25%	9.45%
2021Q1	9.56%	13.19%	13.22%	14.35%	9.10%
2021Q2	9.51%	13.28%	13.30%	14.39%	9.40%

(1) Peer group includes bank level data of depositories attending the KBW Conference with 2Q21 data available

(2) Source: SNL

Public Bank 1Q21 IRR Positioning

- 205 public banks reported their IRR position on a +/- 100 scale for 1q21, and the results are aggregated below:

NII

Immediate

	All		<5b		5-10b		10-50b		50+b	
	-100	+100	-100	+100	-100	+100	-100	+100	-100	+100
	140		76		27		34		3	
Observations	120	133	71	72	24	26	23	32	2	3
Min	-14.4	-7.0	-9.5	-3.5	-14.4	-7.0	-8.4	-6.2	-4.8	7.7
Max	4.3	15.3	2.0	15.0	4.3	14.1	-0.2	12.8	-4.5	15.3
Median	-3.1	3.5	-2.7	3.0	-3.7	3.7	-3.7	4.6	-4.7	9.8
Average	-3.3	3.9	-2.9	3.4	-4.1	3.6	-3.7	4.6	-4.7	10.9
StDev	2.7	4.1	2.3	3.8	3.9	4.3	2.3	4.2	0.2	3.9

NII

Gradual 12 month

	All		<5b		5-10b		10-50b		50+b	
	-100	+100	-100	+100	-100	+100	-100	+100	-100	+100
	65		23		10		21		11	
Observations	43	49	22	13	7	9	13	17	2	11
Min	-5.9	-0.9	-5.9	0.2	-5.3	-0.9	-4.6	0.6	-3.8	0.5
Max	2.3	21.0	-0.2	8.4	2.3	21.0	0.2	8.4	-1.4	9.0
Median	-1.5	3.0	-1.2	2.3	-1.6	1.7	-2.1	3.4	-2.6	4.3
Average	-1.8	3.8	-1.7	3.6	-1.4	3.9	-2.2	3.8	-2.6	4.2
StDev	1.6	3.6	1.5	2.8	2.6	7.1	1.4	2.2	1.7	2.3

Net Interest Income Variations 3/31/21

Net Interest Income Variations - 15 Largest SABER Users*

Peer #	Total Assets (\$Bs)	Net Int Margin	-200 bps	-100 bps	+100 bps	+200 bps	+300 bps	+400 bps
1	\$6.0	3.19%	-4.5%	-3.4%	7.7%	16.3%	25.0%	33.4%
2	\$5.4	3.02%	-11.8%	-6.9%	6.9%	13.3%	19.8%	26.1%
3	\$3.1	3.90%	-4.0%	-2.8%	5.2%	9.4%	13.5%	17.6%
4	\$2.9	2.41%	-12.8%	-7.7%	10.0%	19.5%	28.5%	37.1%
5	\$2.9	2.35%	-0.9%	-1.1%	0.2%	1.9%	3.6%	5.4%
6	\$2.6	1.49%	-12.2%	-11.3%	5.8%	11.9%	17.7%	23.5%
7	\$1.8	3.52%	-4.7%	-3.3%	6.1%	11.8%	17.6%	23.2%
8	\$1.8	2.59%	-3.7%	-2.2%	2.9%	3.9%	-1.2%	-5.8%
9	\$1.6	3.58%	-2.9%	-2.5%	-3.9%	-4.9%	-6.5%	-8.9%
10	\$1.6	2.84%	-0.1%	-0.6%	6.7%	14.1%	21.4%	28.6%
11	\$1.6	3.08%	5.2%	5.2%	5.0%	11.4%	17.4%	23.3%
12	\$1.6	3.36%	-4.5%	-2.9%	2.3%	5.3%	8.3%	10.9%
13	\$1.3	2.88%	-6.1%	-4.8%	9.2%	18.9%	27.8%	35.0%
14	\$1.3	2.60%	-13.4%	-8.6%	-2.1%	-5.8%	-9.9%	-14.2%
15	\$1.2	3.16%	3.4%	3.9%	2.6%	5.6%	8.8%	11.1%
Average Total Assets	\$2.5							
	Median	3.02%	-4.5%	-2.9%	5.2%	11.4%	17.4%	23.2%
	Max	3.90%	5.2%	5.2%	10.0%	19.5%	28.5%	37.1%
	Min	1.49%	-13.4%	-11.3%	-3.9%	-5.8%	-9.9%	-14.2%

* All clients are between \$1 and \$6 billion

Economic Value of Equity Variations 3/31/21

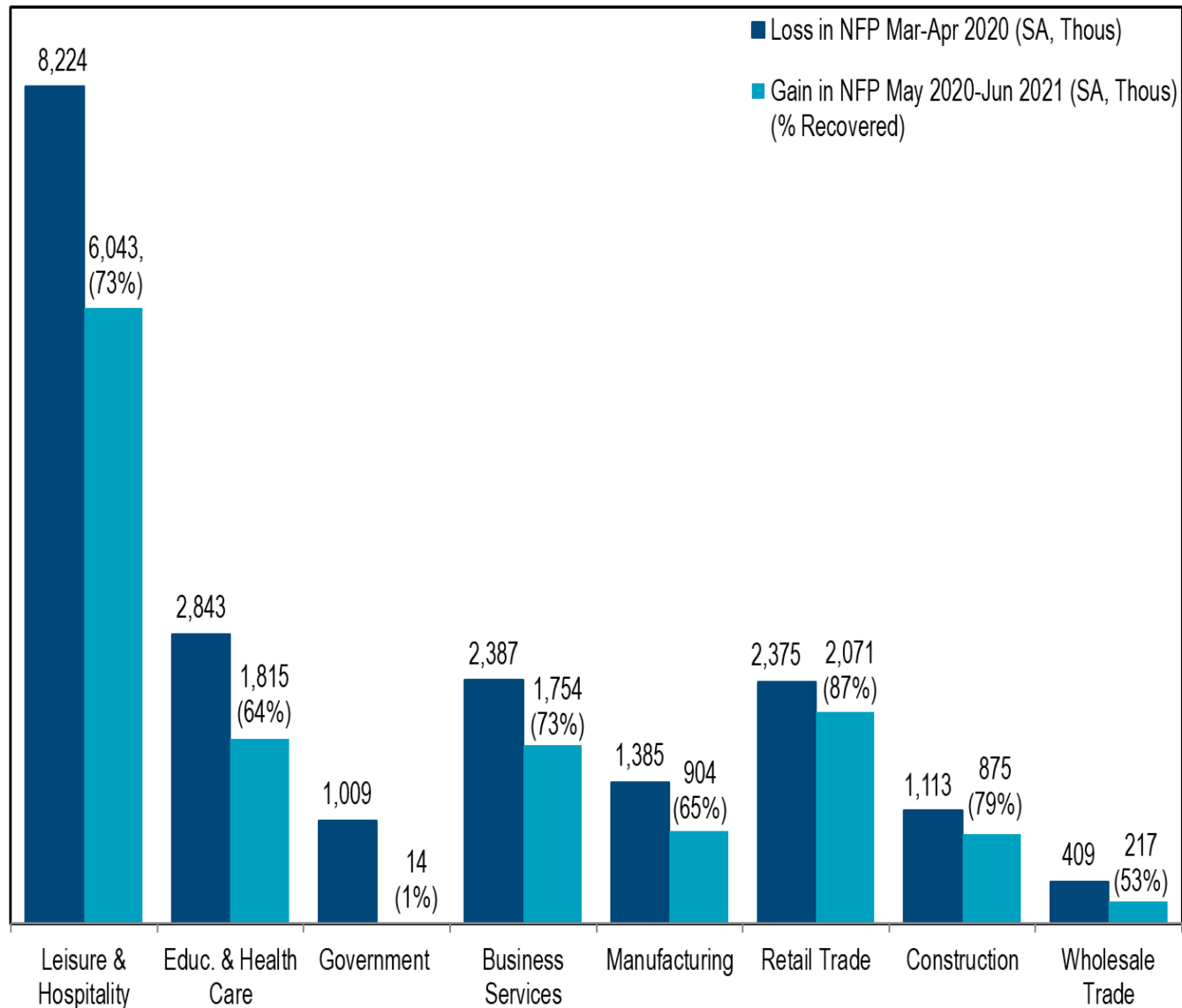
Economic Value of Equity Variations - 15 Largest SABER Users*

Peer #	Total Assets (\$Bs)	-200 bps	-100 bps	+100 bps	+200 bps	+300 bps	+400 bps
1	\$6.0	-7.8%	-8.4%	2.7%	4.9%	6.6%	8.3%
2	\$5.4	-43.4%	-18.6%	9.7%	13.5%	13.4%	10.8%
3	\$3.1	-45.0%	-22.0%	12.1%	19.3%	25.2%	29.8%
4	\$2.9	-21.6%	-18.9%	7.9%	13.4%	17.0%	19.4%
5	\$2.9	4.7%	-1.7%	-1.7%	0.2%	1.8%	2.6%
6	\$2.6	-24.6%	-22.5%	7.9%	13.2%	16.1%	17.2%
7	\$1.8	-34.0%	-15.2%	7.2%	11.2%	12.6%	12.2%
8	\$1.8	-2.8%	0.2%	-1.8%	-8.0%	-18.3%	-29.7%
9	\$1.6	-22.5%	-15.5%	0.5%	1.6%	0.1%	-2.6%
10	\$1.6	16.1%	3.0%	3.8%	8.1%	12.5%	17.0%
11	\$1.6	-10.0%	-8.4%	5.7%	10.2%	13.3%	15.7%
12	\$1.6	5.2%	3.7%	-7.3%	-15.4%	-24.2%	-33.6%
13	\$1.3	-8.7%	-5.3%	0.5%	1.1%	0.2%	-2.6%
14	\$1.3	-4.9%	-5.1%	-4.0%	-9.4%	-16.3%	-23.6%
15	\$1.2	7.9%	-0.8%	0.6%	0.3%	0.2%	-0.8%
Average Total Assets		\$2.5					
Median		-8.7%	-8.4%	2.7%	4.9%	6.6%	8.3%
Max		16.1%	3.7%	12.1%	19.3%	25.2%	29.8%
Min		-45.0%	-22.5%	-7.3%	-15.4%	-24.2%	-33.6%

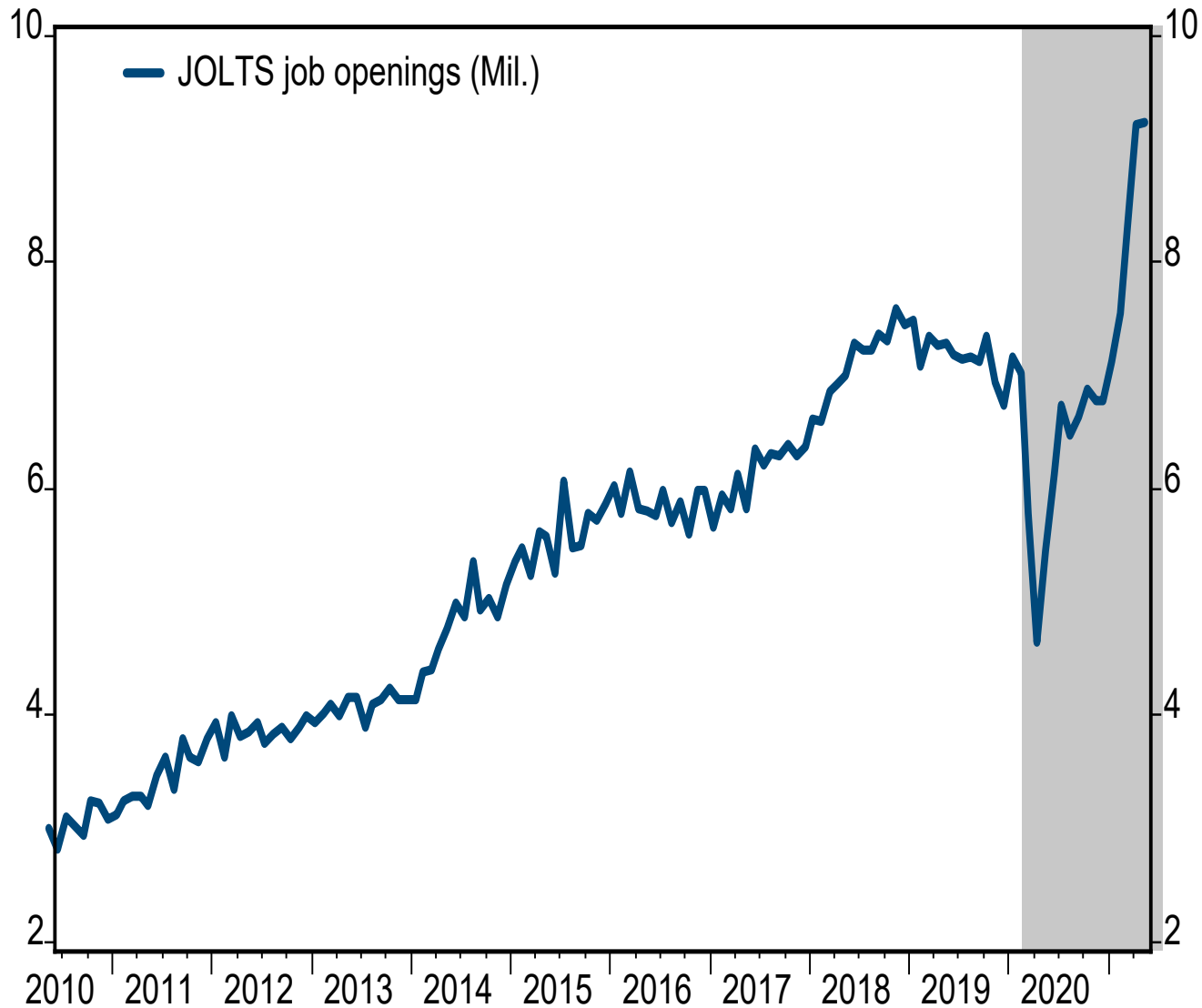
* All clients are between \$1 and \$6 billion

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Hardest Hit Industries Recapture Jobs

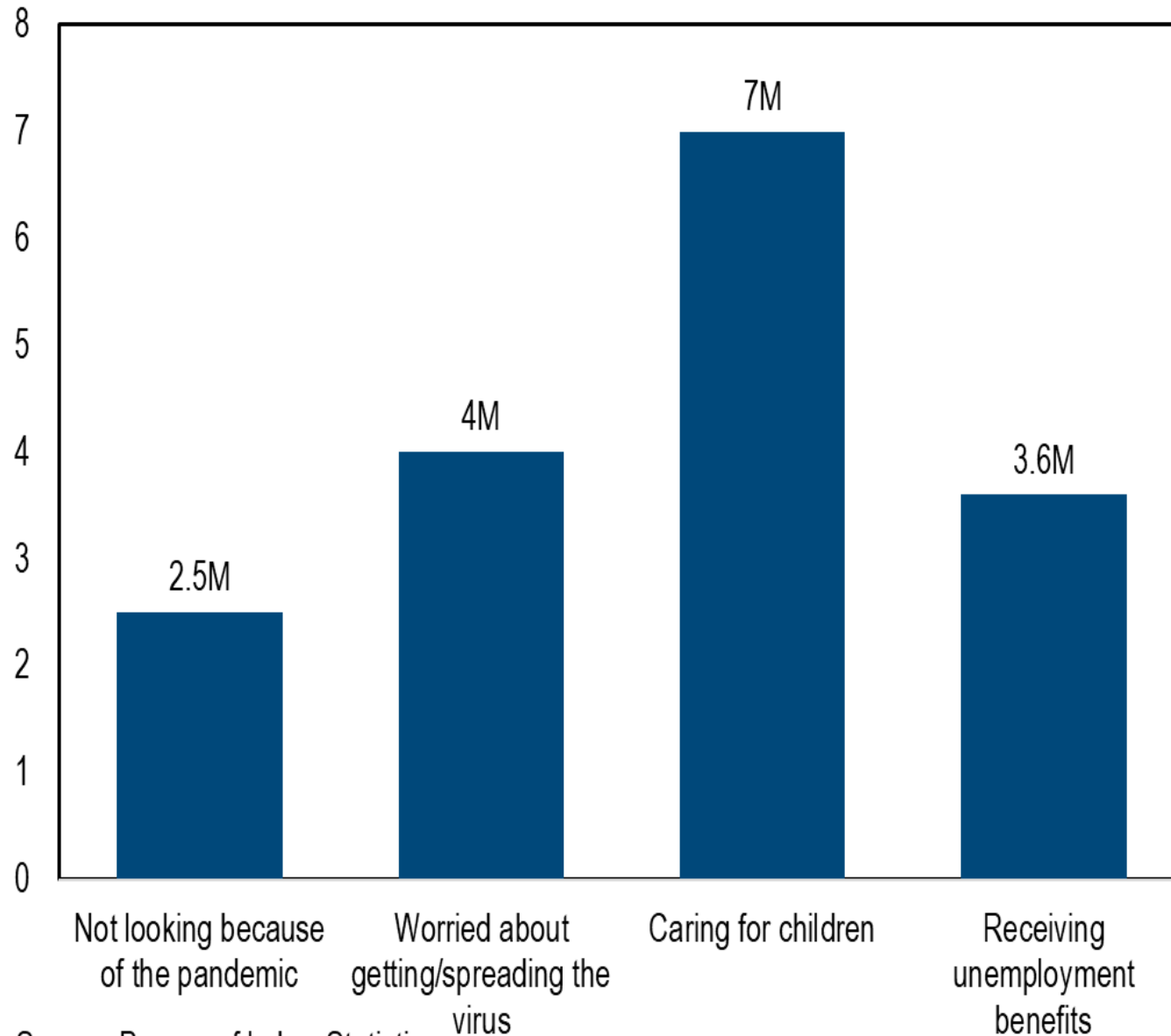


Source: Bureau of Labor Statistics



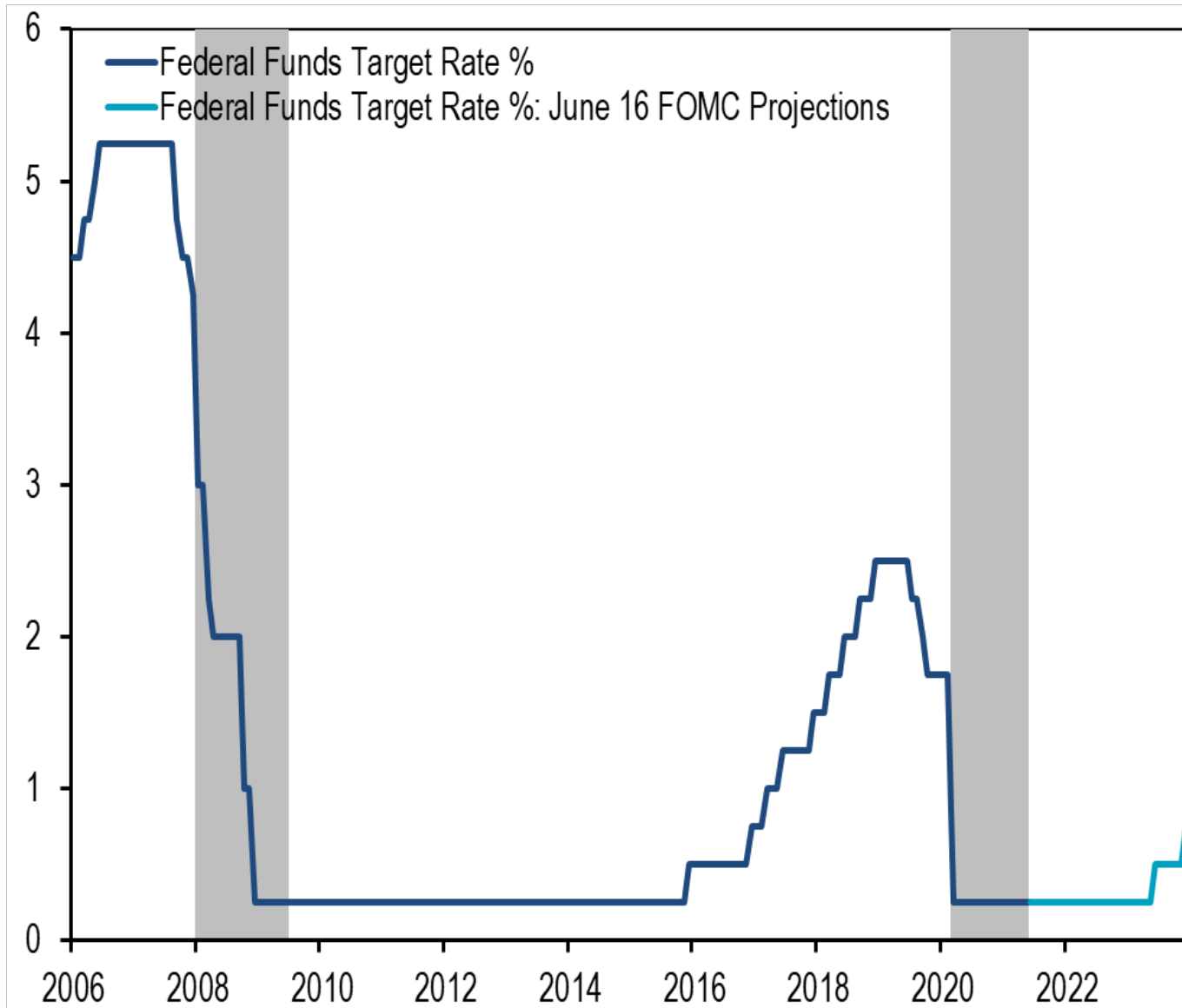
Source: Bureau of Labor Statistics/Haver Analytics

Where Have All the Workers Gone?



Source: Bureau of Labor Statistics

Fed Projects Continued Low Rates

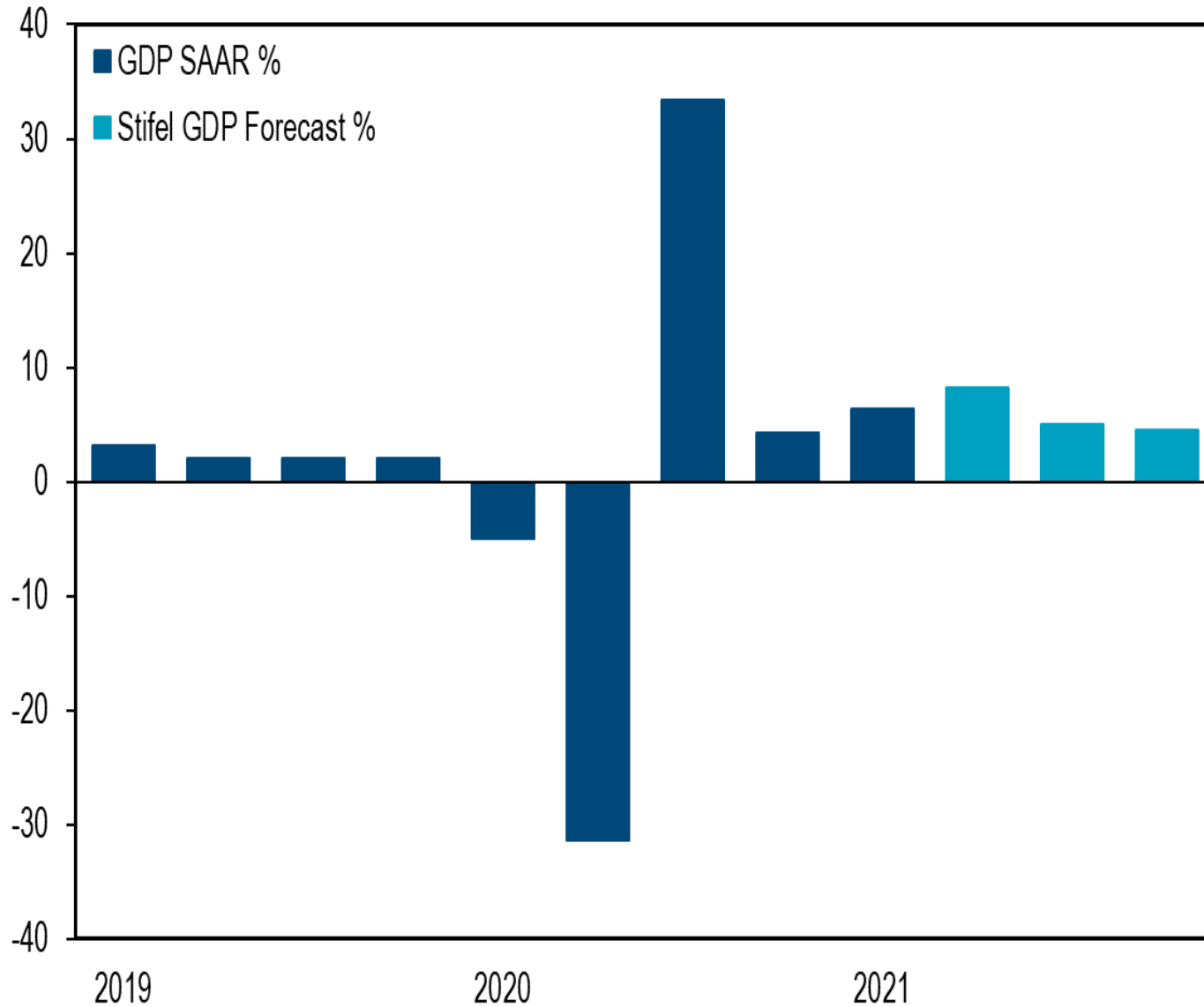


Source: Federal Reserve Board/Bloomberg

Concerns of Inflation Abating?



Source: Bloomberg



Source: Bloomberg/Stifel

Economic Forecast Grid

Annual Average

	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022		2019	2020	2021	2022
Growth indicators															
GDP, QoQ %	33.4%	4.3%	6.4%	8.2%	5.0%	4.5%	3.7%	3.1%	3.5%	2.8%		2.2%	-3.5%	6.1%	4.2%
Consumer Spending, %	41.0%	2.3%	10.7%	9.0%	6.5%	5.0%	3.5%	2.0%	2.2%	2.0%		2.4%	-3.9%	7.9%	2.4%
Fixed Investment, %	31.3%	18.6%	10.1%	14.2%	9.3%	8.1%	8.5%	8.8%	7.0%	6.7%		1.9%	-1.8%	11.9%	7.8%
Housing Starts, k	1,448	1,661	1,725	1,643	1,665	1,680	1,695	1,710	1,720	1,735		1,325	1,411	1,678	1,715
Unemployment Rate, %	8.8%	6.7%	6.2%	5.9%	5.7%	5.4%	5.3%	5.2%	5.0%	4.9%		3.9%	8.1%	5.8%	5.1%
Nonfarm Payrolls, k	716	-306	785	850	300	450	275	175	175	150		180	1,735	596	194
Inflation indicators, YoY%															
PCE	1.4%	1.2%	2.3%	3.8%	4.1%	4.6%	4.0%	3.1%	2.7%	2.2%		1.5%	1.2%	3.7%	3.0%
Core PCE	1.5%	1.4%	1.8%	3.3%	3.3%	3.8%	3.4%	2.4%	2.1%	1.8%		1.7%	1.4%	3.1%	2.4%
PPI	0.4%	0.8%	4.2%	7.3%	7.4%	7.7%	5.8%	4.3%	3.8%	3.4%		1.6%	0.2%	6.7%	4.3%
Interest rate, %															
FF	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25		2.19	0.25	0.25	0.25
3month UST bills	0.10	0.07	0.02	0.04	0.08	0.11	0.15	0.18	0.20	0.22		1.96	0.10	0.06	0.19
2yr UST notes	0.13	0.12	0.16	0.25	0.24	0.28	0.33	0.35	0.45	0.50		1.80	0.16	0.23	0.41
5yr UST notes	0.28	0.36	0.94	0.89	0.75	0.78	0.80	0.85	0.90	0.95		1.81	0.33	0.84	0.88
10yr UST notes	0.69	0.92	1.74	1.47	1.65	1.48	1.50	1.45	1.40	1.30		2.00	0.73	1.59	1.41
30yr UST bonds	1.46	1.65	2.41	2.09	2.50	2.25	2.30	2.25	2.05	1.98		2.46	1.46	2.31	2.15
2s to 10s Spread bps	56	80	158	122	141	120	117	110	95	80		20	57	135	101

Lindsey Piegza, Ph.D. - Chief Economist

Source: Bloomberg, Stifel

Published July 2021

*Red indicates actual figures

**GDP figures shown as annual change

- Current Earnings Trends and Balance Sheet Sensitivity
 - Economic Commentary
 - ***Liability Rationalization***
 - Excess Liquidity – Putting Cash to Work
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-

Liability Rationalization

Liability Rationalization

- Brokered funding
- FHLB
- Other borrowings
- Public Funds

Beginning Securities Portfolio & Funding Analysis

- Sample Bank's securities portfolio pricing for this analysis was provided by Stifel's proprietary pricing matrix as of 10/15/2020 and may not represent executable levels. A sector summary of the securities portfolio is provided below as of 10/15/2020:

Asset Summary - Beginning Portfolio								
Category	Current Face	Book Price	Market Price	Book Yield	WAL	Eff		Gain / Loss
						Dur	Cvx.	
Treasury/Agency	3,000,000	100.00	98.12	2.94	0.9	0.9	0.0	(56,423)
MBS Fixed	50,720,404	100.31	103.85	2.88	2.8	1.1	(1.1)	1,793,169
ARM	6,827,337	101.42	102.35	1.72	3.3	0.4	(0.1)	64,032
CMO Fixed	7,950,395	100.24	99.81	1.92	3.1	1.6	(0.0)	(34,136)
Agency CMBS	4,544,968	99.41	103.02	3.28	3.0	2.9	0.2	164,121
Small Business	3,056,753	100.74	105.42	2.61	5.3	4.6	1.1	143,329
Municipal	44,470,000	100.55	108.20	3.22	5.9	5.6	0.4	3,402,728
Corporate	68,505,000	100.14	100.12	2.75	3.3	2.0	0.5	(16,007)
CD	250,000	100.00	97.03	3.97	9.2	6.9	1.1	(7,422)
Total	189,324,858	100.32	103.20	2.84	3.8	2.6	0.0	5,453,390

- Sample Bank has \$38M in pay fixed swaps outstanding. The weighted average rate of the swaps is 2.23%, as shown below, with a unrealized loss of \$1.3M. A summary of funding and estimated prepayment penalties is provided below:

Liability Summary - Beginning Portfolio						
Category	Par Amount	Rate	Unwind Price	Maturity	Flat Dur.	Gain / Loss
0-3 Month	4,187,500	1.94	100.22	11/23/2020	0.1	(9,281)
3-6 Month	1,000,000	2.70	101.22	3/29/2021	0.5	(12,222)
6-9 Month	1,000,000	1.94	101.37	7/12/2021	0.7	(13,727)
9 Mo - 1 Year	3,496,000	1.88	101.51	8/22/2021	0.8	(52,810)
1 Year - 18 Mo	4,740,000	2.79	103.12	12/22/2021	1.2	(148,118)
18 Mo - 2 Year	11,340,600	2.03	103.31	7/27/2022	1.8	(375,388)
2 Year - 3 Year	10,325,250	2.49	105.31	2/17/2023	2.3	(548,548)
3 Year - 4 Year	2,037,000	1.86	105.58	8/1/2024	3.7	(113,603)
Total	38,126,350	2.23	103.34	6/4/2022	1.6	(1,273,697)

(1) Book Prices and Funding Data provided by Sample Bank as of 9/30/2020, Beginning Data provided by SNL as of 6/30/2020 LTM
(2) Market Prices provided by Stifel's Fixed Income Proprietary Pricing Matrix as of 10/15/2020 and may not represent executable levels
(3) Funding analysis provided by Stifel as of 10/15/2020 and may not represent executable levels

Summary of Strategies

	Beginning Data	Use Cash						No Cash					
		Strategy 1		Strategy 2		Strategy 3		Strategy 4		Strategy 5		Strategy 6	
		Pro Forma	Change	Pro Forma	Change	Pro Forma	Change	Pro Forma	Change	Pro Forma	Change	Pro Forma	Change
		<i>Maximize NII</i> <i>Gain/Loss Neutral</i>		<i>\$20M Deleverage</i> <i>Maximize NII</i> <i>Gain/Loss Neutral</i>		<i>\$10M Deleverage</i> <i>Maximize NII</i> <i>Gain/Loss Neutral</i>		<i>Maximize Deleverage</i> <i>No Cash</i> <i>Income Neutral</i>		<i>\$20M Deleverage</i> <i>No Cash</i> <i>Maximize NII</i> <i>Gain/Loss Neutral</i>		<i>\$10M Deleverage</i> <i>No Cash</i> <i>Maximize NII</i> <i>Gain/Loss Neutral</i>	
Transaction Detail													
Cash & Equivalents	17,795	(955)	(18,750)	4,744	(13,051)	10,857	(6,938)	17,795	-	17,795	-	17,795	-
<i>Avg Yield</i>	0.10%	0.10%		0.10%		0.10%		0.10%		0.10%		0.10%	
Portfolio Balance	189,325	179,750	(9,575)	183,385	(5,940)	186,775	(2,550)	161,161	(28,164)	171,099	(18,226)	178,955	(10,370)
<i>Avg Yield</i>	2.84%	2.80%		2.82%		2.82%		2.93%		2.92%		2.89%	
Security Sales		9,575		5,940		2,550		28,183		18,253		10,399	
<i>Avg Yield</i>		3.57%		3.51%		3.81%		2.30%		2.04%		1.93%	
Liability Prepays		28,443		19,107		9,600		28,443		18,399		10,530	
<i>Avg Cost</i>		2.31%		2.48%		2.79%		2.31%		2.66%		2.87%	
<i>Blended Asset Yield</i>		1.27%		1.17%		1.10%							
Asset Yield - Liability Cost		(1.04%)		(1.31%)		(1.69%)		(0.02%)		(0.62%)		(0.94%)	
Impact on Earnings													
Net Interest Income	37,343	37,635	292	37,591	248	37,502	159	37,350	7	37,458	115	37,442	99
Net Interest Margin	3.44%	3.6%	0.12%	3.52%	0.08%	3.48%	0.05%	3.53%	0.09%	3.51%	0.07%	3.48%	0.04%
Net Income	6,121	6,352	231	6,317	196	6,247	126	6,127	6	6,212	91	6,200	79
Annual. EPS	0.36	0.37	0.01	0.37	0.01	0.37	0.01	0.36	0.00	0.36	0.01	0.36	0.00
ROAA	0.52%	0.55%	0.03%	0.55%	0.03%	0.54%	0.02%	0.53%	0.01%	0.54%	0.02%	0.53%	0.01%
ROAE	5.69%	5.95%	0.27%	5.90%	0.21%	5.82%	0.13%	5.74%	0.06%	5.81%	0.12%	5.78%	0.09%
Pretax Gain / (Loss)		0		0		2		155		0		0	
After-tax Gain / (Loss)		0		0		2		123		0		0	
Impact on Capital													
Tier 1 Leverage	9.22%	9.45%	0.23%	9.38%	0.15%	9.30%	0.08%	9.46%	0.24%	9.37%	0.15%	9.31%	0.08%
CET1 Risk Based	10.97%	11.01%	0.04%	10.99%	0.02%	10.98%	0.01%	11.13%	0.16%	11.08%	0.11%	11.02%	0.05%
Tier 1 Risk Based	10.97%	11.01%	0.04%	10.99%	0.02%	10.98%	0.01%	11.13%	0.16%	11.08%	0.11%	11.02%	0.05%
Total Risk Based	12.01%	12.05%	0.04%	12.04%	0.03%	12.02%	0.01%	12.18%	0.17%	12.13%	0.12%	12.07%	0.06%
Tangible Equity Ratio	8.00%	8.20%	0.20%	8.13%	0.13%	8.06%	0.07%	8.19%	0.20%	8.12%	0.13%	8.07%	0.07%
TCE / TA	8.00%	8.20%	0.20%	8.13%	0.13%	8.06%	0.07%	8.19%	0.20%	8.12%	0.13%	8.07%	0.07%
Impact on -100 EVE		(91)		(86)		(41)		(410)		(336)		(174)	
Impact on +300 EVE		35		112		48		919		741		477	

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(2) Market Prices provided by Stifel's Fixed Income Proprietary Pricing Matrix as of 10/15/2020 and may not represent executable levels
(3) Funding analysis provided by Stifel as of 10/15/2020 and may not represent executable levels


Strategy 2: Transaction Detail

- Strategy 2 explores the impact of a \$20M deleverage using cash and securities sales, while maximizing income pickup and remaining gain/loss neutral

Portfolio Summary & Income Impacts

Portfolio Summary	Current Face	Book Price	Market Price	Gain / Loss	Book Yield	Avg. Life	Eff. Dur.
Current Portfolio	189,325	100.32	103.20	5,453	2.84	3.8	2.6
Security Sales	5,940	101.94	114.65	755	3.51	6.6	6.0
Pro Forma Portfolio	183,385	100.27	102.83	4,698	2.82	3.7	2.5

Liability Summary	Par Amount	Market Price	Gain / Loss	Rate	Rem. Mat.	Eff. Dur.
Current Portfolio	38,126	103.34	(1,274)	2.23	1.6	1.6
Liabilities Paid Off	19,107	103.95	(755)	2.48	1.7	1.7
Proforma Portfolio	19,020	102.73	(519)	1.98	1.5	1.5

Net Interest Margin Impact  0.08%

Effect on Income (Book Values)			
	Yield	Amount	Income Change
Interest Income Given Up	3.51	6,055	(213)
Reduction in Interest Expense	2.48	19,107	474
Reinvestment Income	1.75	0	0
Income Given Up on Cash Used	0.10	13,051	(13)
Cumulative Effect on Pretax NII			248
Provision for Taxes (Assumes 21% Tax Rate)			(52)
Cumulative Effect on Net Income			196

Securities Sold & Liabilities Unwound

Asset Summary - Strategy Sales								
Category	Current Face	Book Price	Market Price	Book Yield	WAL	Eff		Gain / Loss
						Dur	Cvx.	
Treasury/Agency	-	-	-	-	-	-	-	-
MBS Fixed	-	-	-	-	-	-	-	-
ARM	-	-	-	-	-	-	-	-
CMO Fixed	-	-	-	-	-	-	-	-
Agency CMBS	-	-	-	-	-	-	-	-
Small Business	-	-	-	-	-	-	-	-
Municipal	5,940,000	101.94	114.65	3.51	6.6	6.0	0.4	755,081
Corporate	-	-	-	-	-	-	-	-
CD	-	-	-	-	-	-	-	-
Total	5,940,000	101.94	114.65	3.51	6.6	6.0	0.4	755,081

Liability Summary - Strategy Unwinds						
Category	Par Amount	Rate	Unwind Price	Maturity	Flat Dur.	Gain / Loss
0-3 Month	-	-	-	-	-	-
3-6 Month	-	-	-	-	-	-
6-9 Month	-	-	-	-	-	-
9 Mo - 1 Year	-	-	-	-	-	-
1 Year - 18 Mo	4,740,000	2.79	103.12	12/22/2021	1.2	(148,118)
18 Mo - 2 Year	9,340,600	2.14	103.44	7/12/2022	1.7	(321,598)
2 Year - 3 Year	5,026,000	2.81	105.67	12/23/2022	2.1	(285,045)
3 Year - 4 Year	-	-	-	-	-	-
Total	19,106,600	2.48	103.95	7/5/2022	1.7	(754,761)

- Book Prices and Funding Data provided by Sample Bank as of 9/30/2020, Beginning Data provided by SNL as of 6/30/2020 LTM
- Market Prices provided by Stifel's Fixed Income Proprietary Pricing Matrix as of 10/15/2020 and may not represent executable levels
- Funding analysis provided by Stifel as of 10/15/2020 and may not represent executable levels


Strategy 5: Transaction Detail

- Strategy 5 explores the impact of a \$20M deleverage using only securities sales, while maximizing income pickup and remaining gain/loss neutral

Portfolio Summary & Income Impacts

Portfolio Summary	Current Face	Book Price	Market Price	Gain / Loss	Book Yield	Avg. Life	Eff. Dur.
Current Portfolio	189,325	100.32	103.20	5,453	2.84	3.8	2.6
Security Sales	18,253	100.95	105.57	844	2.04	4.0	3.0
Securities Purchased	27	100.46	100.46	-	1.75	10.0	9.3
Pro Forma Portfolio	171,099	100.25	102.95	4,609	2.92	3.8	2.6

Liability Summary	Par Amount	Market Price	Gain / Loss	Rate	Rem. Mat.	Eff. Dur.
Current Portfolio	38,126	103.34	(1,274)	2.23	1.6	1.6
Liabilities Paid Off	18,399	104.59	(844)	2.66	1.9	1.8
Proforma Portfolio	19,727	102.18	(429)	1.83	1.4	1.4

Net Interest Margin Impact  0.07%

Effect on Income (Book Values)			
	Yield	Amount	Income Change
Interest Income Given Up	2.04	18,426	(376)
Reduction in Interest Expense	2.66	18,399	490
Reinvestment Income	1.75	27	0
Income Given Up on Cash Used	0.10	0	0
Cumulative Effect on Pretax NII			115
Provision for Taxes (Assumes 21% Tax Rate)			(24)
Cumulative Effect on Net Income			91

Securities Sold & Liabilities Unwound

Asset Summary - Strategy Sales								
Category	Current Face	Book Price	Market Price	Book Yield	WAL	Eff		Gain / Loss
						Dur	Cvx.	
Treasury/Agency	-	-	-	-	-	-	-	-
MBS Fixed	1,329,570	102.92	102.42	0.99	1.6	0.5	(0.7)	(6,745)
ARM	1,079,021	102.33	102.72	1.24	3.4	0.3	0.1	4,138
CMO Fixed	539,287	101.11	100.42	0.46	0.5	(2.6)	4.4	(3,715)
Agency CMBS	-	-	-	-	-	-	-	-
Small Business	-	-	-	-	-	-	-	-
Municipal	8,805,000	101.17	111.02	3.00	6.3	5.9	0.4	866,962
Corporate	6,500,000	100.00	99.75	1.22	1.8	0.3	0.8	(16,235)
CD	-	-	-	-	-	-	-	-
Total	18,252,878	100.95	105.57	2.04	4.0	3.0	0.6	844,404

Liability Summary - Strategy Unwinds						
Category	Par Amount	Rate	Unwind Price	Maturity	Flat Dur.	Gain / Loss
0-3 Month	-	-	-	-	-	-
3-6 Month	-	-	-	-	-	-
6-9 Month	-	-	-	-	-	-
9 Mo - 1 Year	-	-	-	-	-	-
1 Year - 18 Mo	4,740,000	2.79	103.12	12/22/2021	1.2	(148,118)
18 Mo - 2 Year	4,915,000	2.56	103.98	6/5/2022	1.6	(195,570)
2 Year - 3 Year	8,744,000	2.65	105.73	3/2/2023	2.3	(500,701)
3 Year - 4 Year	-	-	-	-	-	-
Total	18,399,000	2.66	104.59	8/30/2022	1.8	(844,389)

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Releverage Scenarios

Strategy 2: Releverage Opportunity

- In addition to a \$20M Deleverage, a Releverage of \$20M brings the balance sheet back to its original size while improving spread on funding and securities
- After a \$20M deleverage, relevering the balance sheet by \$20M, assuming a 135bp spread on securities and funding, improves Net Interest Income by \$518k, increases EPS by \$0.02, boosts NIM by 4bps and ROE by 41bps
 - Assumed reinvestment into a representative 10yr Taxable Municipal yielding 1.75%
 - Assumed funding cost of 40bps on short term FHLB advances

	Baseline	Step 1: Delever		Step 2: Relever		Change vs.
		Proforma	Δ	Proforma	Δ	Baseline
Impact on Capital						
						Cumulative
Tier 1 Leverage	9.22%	9.38%	0.15%	9.22%	(0.16)%	(0.00)%
CET1 Risk Based	10.97%	10.99%	0.02%	10.95%	(0.04)%	(0.02)%
Tier 1 Risk Based	10.97%	10.99%	0.02%	10.95%	(0.04)%	(0.02)%
Total Risk Based	12.01%	12.04%	0.03%	11.99%	(0.05)%	(0.02)%
Tangible Equity Ratio	8.00%	8.13%	0.13%	7.99%	(0.13)%	(0.00)%
TCE / TA	8.00%	8.13%	0.13%	7.99%	(0.13)%	(0.00)%
Impact on Earnings						
Net Interest Income	37,343	37,591	248	37,861	270	518
Net Income	6,121	6,317	196	6,530	213	409
Net Interest Margin	3.44%	3.52%	0.08%	3.48%	(0.04)%	0.04%
Return on Assets	0.52%	0.55%	0.03%	0.55%	0.01%	0.03%
Return on Equity	5.69%	5.90%	0.21%	6.10%	0.20%	0.41%
Pre-Tax Gain / (Loss)		0	0	0	0	
After Tax Gain / (Loss)		0	0	0	0	
EPS	0.36	0.37	0.01	0.38	0.01	0.02
Impact on Balance Sheet						
Portfolio Balance	189,325	183,385	-5,940	203,293	19,908	13,968
Avg Yield	2.84%	2.82%	-0.02%	2.71%	-0.10%	(0.13)%
Liability Balance	38,126	19,020	-19,107	39,020	20,000	893
Avg Cost	2.23%	1.98%	-0.25%	1.17%	-0.81%	(1.06)%
Impact on +300 EVE		112	112	(4,650)	(4,762)	

Step 2: Leverage Detail		
Amount	20,000	
Asset Yield	1.75%	Securities
Risk Weight	20%	
Flat Price	100.46	
+300 Price	76.40	
Funding Cost	0.40%	Funding
Flat Price	100.00	
+300 Price	99.75	



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 (3) Funding analysis provided by Stifel as of 10/15/2020 and may not represent executable levels

Strategy 5: Releverage Opportunity

- In addition to a \$20M Deleverage, a Releverage of \$20M brings the balance sheet back to its original size while improving spread on funding and securities
- After a \$20M deleverage, relevering the balance sheet by \$20M, assuming a 135bp spread on securities and funding, improves Net Interest Income by \$385k, increases EPS by \$0.02, boosts NIM by 3bps and ROE by 32bps
 - Assumed reinvestment into a representative 10yr Taxable Municipal yielding 1.75%
 - Assumed funding cost of 40bps on short term FHLB advances

	Baseline	Step 1: Delever		Step 2: Relever		Change vs.
		Proforma	Δ	Proforma	Δ	Baseline
Impact on Capital						
						Cumulative
Tier 1 Leverage	9.22%	9.37%	0.15%	9.22%	(0.16)%	(0.01)%
CET1 Risk Based	10.97%	11.08%	0.11%	11.03%	(0.04)%	0.06%
Tier 1 Risk Based	10.97%	11.08%	0.11%	11.03%	(0.04)%	0.06%
Total Risk Based	12.01%	12.13%	0.12%	12.08%	(0.05)%	0.07%
Tangible Equity Ratio	8.00%	8.12%	0.13%	7.99%	(0.13)%	(0.00)%
TCE / TA	8.00%	8.12%	0.13%	7.99%	(0.13)%	(0.00)%
Impact on Earnings						
Net Interest Income	37,343	37,458	115	37,728	270	385
Net Income	6,121	6,212	91	6,425	213	304
Net Interest Margin	3.44%	3.51%	0.07%	3.47%	(0.04)%	0.03%
Return on Assets	0.52%	0.54%	0.02%	0.55%	0.01%	0.03%
Return on Equity	5.69%	5.81%	0.12%	6.01%	0.20%	0.32%
Pre-Tax Gain / (Loss)		0	0	0	0	
After Tax Gain / (Loss)		0	0	0	0	
EPS	0.36	0.36	0.01	0.38	0.01	0.02
Impact on Balance Sheet						
Portfolio Balance	189,325	171,099	-18,226	191,007	19,908	1,682
Avg Yield	2.84%	2.92%	0.09%	2.80%	-0.12%	(0.04)%
Liability Balance	38,126	19,727	-18,399	39,727	20,000	1,601
Avg Cost	2.23%	1.83%	-0.40%	1.11%	-0.72%	(1.12)%
Impact on +300 EVE		741	741	(4,021)	(4,762)	

Step 2: Leverage Detail		
Amount	20,000	
Asset Yield	1.75%	Securities
Risk Weight	20%	
Flat Price	100.46	
+300 Price	76.40	
Funding Cost	0.40%	Funding
Flat Price	100.00	
+300 Price	99.75	

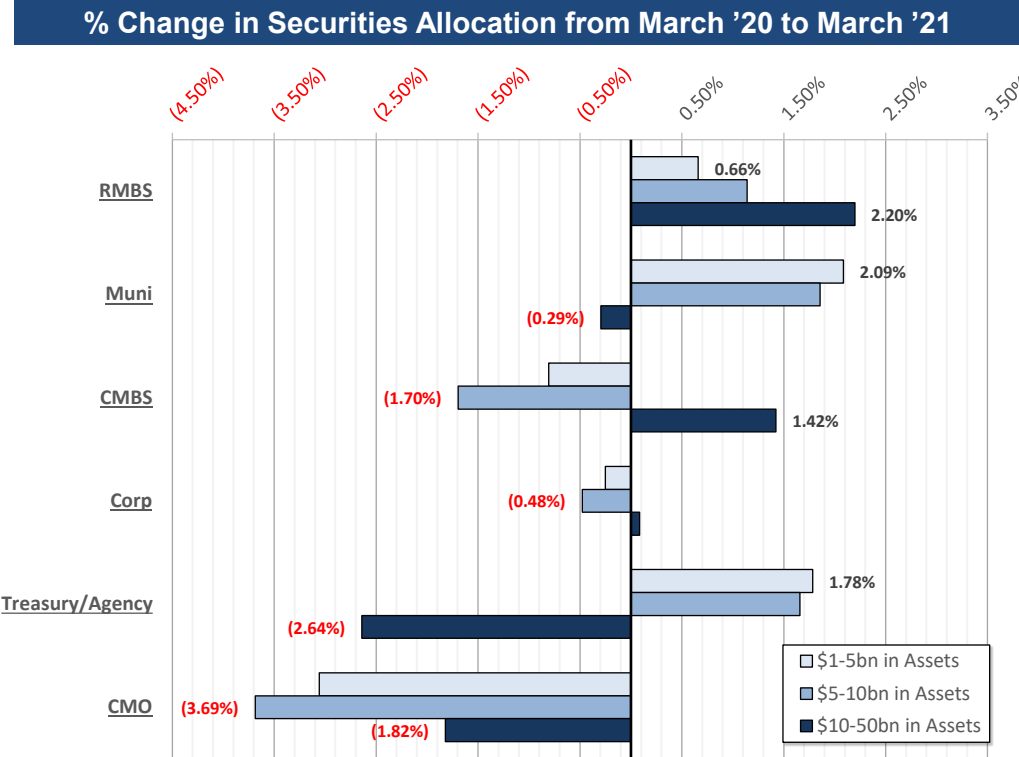


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- Current Earnings Trends and Balance Sheet Sensitivity
 - Economic Commentary
 - Liability Rationalization
 - ***Excess Liquidity – Putting Cash to Work***
 - Protecting TBV in Future Rate Environment – HTM Utilization / Hedging
-

Securities Portfolio Allocation Trends Among Large Depositories

- SNL Data shows that securities activity among large depository institutions (\$5bn to \$50bn) continues to accelerate.
- Allocations to the RMBS sector have accelerated and additions to longer fixed CMBS continue, but purchases in the municipal space slowed dramatically, especially among the largest institutions.
- As a result, aggregate securities portfolio mixes have continued to shift meaningfully over the last 12 months. Overall, RMBS, municipal and CMBS allocations saw the largest change.
- This growth has not been equitable by institution size. Institutions between \$1bn and \$5bn showed a 2.09% increase in municipal allocations (*a 48% increase in absolute dollars*) vs. -0.29% among banks \$10-50bn. These larger institutions reallocated most heavily to CMBS and RMBS, which grew by 2.20% and 1.42%, respectively.



Quarter-over-Quarter Change in Cost Basis by Security Type: Commercial and Savings Banks \$5-50bn

	March 2021	Dec. 2020	Sept. 2020	June 2020	March 2020	Dec. 2019	Sept. 2019	March 2019
Treasury/Agency	12.68%	7.95%	3.77%	-2.85%	-10.55%	0.56%	-0.34%	-4.97%
RMBS	14.77%	6.74%	9.20%	1.62%	-1.77%	4.21%	1.98%	-0.82%
CMBS	8.96%	7.09%	8.16%	4.03%	8.00%	9.38%	9.81%	4.18%
Muni	5.06%	7.35%	9.75%	9.19%	9.99%	3.06%	2.45%	-4.96%
CMOs	6.43%	4.78%	-0.19%	0.65%	2.40%	-4.50%	2.79%	-0.45%
Corporates	7.63%	1.82%	1.82%	12.57%	9.66%	1.52%	3.04%	1.25%
Total:	10.08%	6.87%	6.26%	3.08%	1.50%	2.15%	2.55%	-2.11%

June Purchase Allocations

Notable Purchase Trends

- Treasury/Agency purchases increased 3% month over month with Treasury concentrations shifting higher relative to bullet and callable agency allocations
- MBS Fixed purchases added more concentration to 10yr and 30yr paper relative to May, but still had the highest allocation to 15y and 20y, where weighted average coupons were between 1.5% and 2.0%
- CMO purchases continued to be heavily focused toward stripped down PAC structures, with similar coupons to May with a slightly higher weighted average, and the weighted average price slightly elevated to 100.24
- In ACMBS, the majority of purchases remained in Freddie Ks; wider window structures like FRESBs and Project Loans were elevated compared to May; and DUS allocations dropped by more than half
- In Municipals, there was a more even distribution of taxable vs. tax-exempt, and a slight increase in bank qualified

	Alloc %	Book Price	Mat Cpn	Mat (yrs)	Nxt Call (yrs)	Bk Yld	A/L	+300 Px Risk	+100 Px Risk	-100 Px Risk
Total	100%	101.75	1.70	18.5	0.5	1.37	5.2	(15.9)	(5.0)	3.9
Treasury	10%	100.02	0.87	5.1	-	0.89	5.1	(13.7)	(4.8)	5.1
Agency	5%	100.34	1.27	6.9	0.4	1.28	2.3	(15.5)	(4.8)	2.3
MBS Fixed	48%	102.22	1.89	19.0	-	1.35	5.1	(16.0)	(4.8)	3.0
ARM	0%	108.06	1.89	37.8	-	2.43	4.5	(6.0)	(2.0)	2.5
CMO Fixed	15%	100.24	1.38	27.9	0.2	1.32	4.7	(17.2)	(4.9)	3.6
CMO Floating	2%	101.97	0.68	34.1	-	0.41	6.6	(7.7)	(1.5)	3.7
Agency CMBS	6%	102.95	2.00	16.4	1.0	1.47	6.5	(16.7)	(5.9)	6.1
Small Business	1%	105.29	2.16	20.0	-	1.20	6.4	(12.4)	(4.4)	6.4
Municipal	4%	104.31	2.37	13.6	5.7	2.72	8.0	(24.6)	(8.7)	8.9
Corporate	4%	103.47	3.26	7.1	3.3	2.48	4.9	(15.5)	(5.4)	5.3
ABS	4%	101.22	1.20	43.4	0.1	1.22	6.3	(11.9)	(4.3)	5.3
CD	1%	100.00	0.72	3.2	0.1	0.72	2.8	(8.3)	(2.9)	2.8

(1) Aggregated depository purchase and sale data from Stifel's PRA database. Data represents portfolio changes (purchases and sales only, excludes paydowns, calls, maturities) for portfolios run in sequential months.

(2) CMO Floating -100 Px Risk is positive due to the value of the embedded floors and the proximity of the index to the floors

June Purchase Allocations By Asset Size

Sector Allocation by Asset Size

Represents how different size cohorts are allocating across sectors

- All cohorts had the highest percentage allocation to MBS Fixed
- The smallest cohort (<1B) and the largest cohort (>10B) had the highest allocation to Agencies while the largest cohort (>10B) had the highest allocation to Treasuries

	<1b	1-5b	5-10b	10-50b	Total
Total	100%	100%	100%	100%	100%
Treasury	8%	4%	2%	15%	10%
Agency	16%	5%	1%	3%	5%
MBS Fixed	32%	47%	52%	52%	48%
ARM	0%	0%	0%	0%	0%
CMO Fixed	13%	15%	30%	11%	15%
CMO Floating	1%	2%	1%	3%	2%
Agency CMBS	4%	5%	3%	7%	6%
Small Business	2%	2%	1%	1%	1%
Municipal	10%	6%	5%	2%	4%
Corporate	4%	7%	0%	3%	4%
ABS	3%	6%	6%	2%	4%
CD	7%	1%	0%	0%	1%

Asset Size Distribution by Product

Illustrates which asset size cohorts are most active in which sectors

- Treasury, MBS Fixed, CMOs and ACMBS purchases were driven by the >10B cohort
- Municipal, ABS and Corporate purchases were driven by <5B cohort

	<1b	1-5b	5-10b	10-50b	Total
Total					
Treasury	12%	10%	2%	76%	100%
Agency	45%	24%	3%	29%	100%
MBS Fixed	9%	23%	13%	54%	100%
ARM	49%	0%	0%	51%	100%
CMO Fixed	13%	24%	25%	38%	100%
CMO Floating	10%	19%	3%	67%	100%
Agency CMBS	9%	23%	6%	62%	100%
Small Business	23%	39%	11%	26%	100%
Municipal	32%	30%	15%	22%	100%
Corporate	14%	44%	1%	42%	100%
ABS	11%	39%	20%	30%	100%
CD	87%	13%	0%	0%	100%

Investment Options

Securities Purchases												
Type	SubSector	Coupon (%)	Price	Duration	Cvx	WAL	0-12mo Yield			Price Volatility		
							-100	Base	+100	-100	+100	+300
Treasury	2yr Treasury	0.13	99.86	2.0	0.1	2.0	0.20	0.20	0.20	2.0%	-2.0%	-5.8%
Treasury	3yr Treasury	0.38	100.05	2.9	0.1	3.0	0.36	0.36	0.36	3.0%	-2.9%	-8.4%
Treasury	5yr Treasury	0.63	99.57	4.9	0.3	5.0	0.71	0.71	0.71	5.1%	-4.8%	-13.7%
Treasury	10yr Treasury	1.63	103.45	9.1	0.9	9.8	1.25	1.25	1.25	9.7%	-8.7%	-23.8%
Agency Debt	2yr Agy Bullet	0.21	100.00	2.0	0.0	2.0	0.21	0.21	0.21	2.0%	-2.0%	-5.7%
Agency Debt	3yr Agy Bullet	0.37	100.00	3.0	0.1	3.0	0.37	0.37	0.37	3.0%	-2.9%	-8.5%
Agency Debt	5yr Agy Bullet	0.73	100.00	4.9	0.3	5.0	0.73	0.73	0.73	5.1%	-4.8%	-13.6%
Agency Debt	10yr Agy Bullet	1.28	100.00	9.5	1.0	10.0	1.28	1.28	1.28	10.0%	-9.0%	-24.5%
Agency Debt	2yr Agy Callable (2YNC6M Berm)	0.23	100.00	1.2	-1.6	0.5	0.23	0.23	0.23	0.7%	-1.6%	-5.4%
Agency Debt	3yr Agy Callable (3YNC6M Berm)	0.46	100.00	1.6	-2.1	0.5	0.46	0.46	0.46	0.8%	-2.3%	-7.8%
Agency Debt	5yr Agy Callable (5YNC6M Berm)	0.88	100.00	2.4	-3.2	0.5	0.88	0.88	0.88	1.0%	-3.3%	-11.9%
Agency Debt	10yr Agy Callable (10YNC6M Berm)	1.59	100.00	3.6	-5.7	0.7	1.59	1.59	1.59	1.4%	-5.2%	-19.9%
Agency MBS	10yr 1.5% MBS pass through	1.50	103.00	2.5	-1.3	3.2	-0.03	0.51	0.68	1.8%	-3.0%	-10.3%
Agency MBS	15yr 2% MBS pass through	2.00	103.89	2.3	-2.1	3.4	-0.26	0.79	1.21	1.4%	-3.3%	-13.1%
Agency MBS	15yr 1.5% MBS pass through	1.50	102.03	3.1	-2.1	4.0	0.33	0.95	1.11	2.1%	-4.0%	-14.4%
Agency MBS	20yr 2% MBS pass through	2.00	103.02	3.4	-2.2	3.9	0.48	1.15	1.51	2.4%	-4.4%	-16.6%
Agency MBS	30yr 2.5% MBS pass through	2.50	104.27	2.8	-3.4	4.1	-0.04	1.37	1.90	1.5%	-4.4%	-18.9%
Agency MBS	30yr 2% MBS pass through	2.00	102.11	4.1	-3.6	5.5	0.74	1.56	1.74	2.5%	-5.6%	-21.2%
Hybrid ARM	7/6 Hybrid ARM	1.90	103.36	2.1	-1.5	3.2	0.15	0.81	1.24	1.5%	-2.9%	-10.8%
Hybrid ARM	10/6 Hybrid ARM	1.99	103.39	2.2	-1.9	3.3	0.12	0.89	1.40	1.5%	-3.2%	-12.6%
Agency CMO	3yr SEQ	2.00	102.56	1.6	-4.2	2.6	-2.13	0.93	1.49	0.0%	-3.2%	-14.6%
Agency CMO	5yr SEQ	1.75	101.96	4.3	-2.5	4.6	0.85	1.28	1.42	3.0%	-5.3%	-18.7%
Agency CMO	3yr PAC	2.50	103.66	1.3	-2.6	2.4	-0.80	0.84	1.74	0.6%	-2.8%	-15.2%
Agency CMO	5yr PAC	1.50	100.83	4.4	-1.8	4.8	1.16	1.30	1.34	3.9%	-5.5%	-20.0%
Agency CMO	CMO Floater	0.27	99.75	1.5	1.1	3.6	0.39	0.37	1.33	1.7%	-1.5%	-9.0%
Agency CMBS	4yr Agy CMBS	3.05	109.00	4.0	0.2	4.3	0.91	0.91	0.91	4.1%	-4.0%	-11.3%
Agency CMBS	6yr Agy CMBS	2.48	108.09	6.2	0.5	6.7	1.23	1.23	1.23	6.5%	-6.0%	-16.8%
Agency CMBS	9yr Agy CMBS	2.29	107.16	8.6	0.9	9.5	1.50	1.50	1.50	9.1%	-8.2%	-22.4%
SBA	SBA Floater (Premium)	4.32	113.25	1.3	6.8	3.8	0.89	0.63	1.32	5.1%	-1.0%	-3.5%
SBA	SBA Fixed	1.67	102.00	5.3	-1.3	5.7	1.26	1.26	1.26	5.6%	-5.2%	-14.4%
NA CMBS	Non-Agency CMBS (AAA)	2.75	107.31	7.2	0.6	8.0	1.76	1.76	1.76	7.5%	-7.0%	-19.3%
NA RMBS	RMBS 30yr FCF (AAA)	2.50	102.77	1.4	-3.5	2.3	-0.92	1.09	1.91	-0.7%	-3.8%	-15.8%
NA RMBS	RMBS 30yr PT (AAA)	2.50	102.14	3.3	-3.5	4.3	0.80	1.87	2.18	0.7%	-8.1%	-23.1%
CLO	CLO AA	1.89	100.30	1.6	11.3	5.7	1.74	1.84	2.73	5.0%	-0.6%	-1.8%
CLO	CLO AAA	1.39	100.40	1.1	7.4	3.7	1.19	1.29	2.12	3.4%	-0.6%	-1.8%
Municipal	10yr General Market Muni (AA)	3.00	118.47	8.9	0.9	10.0	1.19	1.19	1.19	9.4%	-8.5%	-23.1%
Municipal	15yr General Market Muni (AA)	3.00	114.68	10.4	0.8	10.0	1.66	1.66	1.66	10.3%	-9.8%	-27.7%
Municipal	20yr General Market Muni (AA)	3.00	113.68	11.6	0.8	10.0	1.79	1.79	1.79	11.1%	-10.9%	-31.2%
Municipal	10yr Taxable Muni	1.63	100.18	9.3	1.0	10.0	1.61	1.61	1.61	9.8%	-8.9%	-24.1%
Municipal	15yr Taxable Muni	2.13	100.09	11.8	1.4	10.0	2.12	2.12	2.12	11.7%	-11.0%	-30.3%
Municipal	20yr Taxable Muni	2.50	100.44	13.4	1.7	10.0	2.45	2.45	2.45	12.8%	-12.3%	-34.0%
Corporate	3yr Floater Corp (Financial)	0.63	100.56	2.2	-0.1	1.6	0.29	0.29	0.42	1.9%	-2.2%	-7.1%
Corporate	5yr Fixed Corp (Banks)	1.07	100.00	4.9	0.3	5.0	1.07	1.07	1.07	5.0%	-4.8%	-13.5%
Corporate	5yr Floater Corp (Financial)	0.94	101.12	5.3	0.2	4.7	0.71	0.71	0.75	5.2%	-5.2%	-15.0%
Corporate	Community Bank Sub Debt (BBB)	0.05	100.00	4.4	0.0	5.0	3.25	3.25	3.25	4.5%	-4.3%	-12.3%

Summary of Strategies

- The following analysis for Sample Bank shows the impacts of 3 different cash deploy allocations with varying goals and constraints.
- The strategies assume cash is earning 0.10% and that Sample Bank can deploy that cash into a basket of securities.
- Cash funds the purchase of a mix of Agency Debt, Agency MBS, Agency CMBS, SBA Floaters, Non-Agency CMBS, Non-Agency RMBS, CLOs, Municipals, Subordinated Debt.

Strategy 1:

\$50M Cash Deploy, maximize spread while limiting +300 Price Volatility to -15%

Type	Price	Yield / Cost	WAL	Eff. Dur.	Price Volatility		
					-100	+100	+300
Assets Strategy 1	104.96	1.13%	4.2	3.9	3.6%	-4.5%	-15.0%
Funded with Cash	100.00	0.10%	0.0	0.0	0.0%	0.0%	0.0%
Difference		1.03%	4.2	3.9	3.6%	-4.5%	-15.0%

Strategy 2:

\$50M Cash Deploy, maximize spread while limiting +300 Price Volatility to -20%

Type	Price	Yield / Cost	WAL	Eff. Dur.	Price Volatility		
					-100	+100	+300
Assets Strategy 2	103.99	1.48%	5.8	6.3	6.1%	-6.5%	-19.9%
Funded with Cash	100.00	0.10%	0.0	0.0	0.0%	0.0%	0.0%
Difference		1.38%	5.8	6.3	6.1%	-6.5%	-19.9%

Strategy 3:

\$50M Cash Deploy, maximize spread while limiting +300 Price Volatility to -15% and allowing for CLOs, Non-Agency and Subordinated Debt to be purchased

Type	Price	Yield / Cost	WAL	Eff. Dur.	Price Volatility		
					-100	+100	+300
Assets Strategy 3	103.35	1.64%	5.7	4.8	5.2%	-5.0%	-14.9%
Funded with Cash	100.00	0.10%	0.0	0.0	0.0%	0.0%	0.0%
Difference		1.54%	5.7	4.8	5.2%	-5.0%	-14.9%

Cash Deploy Allocations

Funding												
Type	Maturity	Coupon (%)	Price	Duration	Cvx	WAL	0-12mo Cost (%)			Price Volatility		
							-100	Base	+100	-100	+100	+300
Cash	8/2/2021	0.10	100.00	0.0	0.0	0.0	-0.90	0.10	1.10	0.0%	0.0%	0.0%

Allocation		
Strategy 1	Strategy 2	Strategy 3
100%	100%	100%

Securities Purchases												
Type	SubSector	Coupon (%)	Price	Duration	Cvx	WAL	0-12mo Yield			Price Volatility		
							-100	Base	+100	-100	+100	+300
Agency Debt	5yr Agy Callable (5YNC6M Berm)	0.88	100.00	2.4	-3.2	0.5	0.88	0.88	0.88	1.0%	-3.3%	-11.9%
Agency Debt	10yr Agy Callable (10YNC6M Berm)	1.59	100.00	3.6	-5.7	0.7	1.59	1.59	1.59	1.4%	-5.2%	-19.9%
Agency MBS	15yr 2% MBS pass through	2.00	103.89	2.3	-2.1	3.4	-0.26	0.79	1.21	1.4%	-3.3%	-13.1%
Agency MBS	15yr 1.5% MBS pass through	1.50	102.03	3.1	-2.1	4.0	0.33	0.95	1.11	2.1%	-4.0%	-14.4%
Agency MBS	20yr 2% MBS pass through	2.00	103.02	3.4	-2.2	3.9	0.48	1.15	1.51	2.4%	-4.4%	-16.6%
Agency MBS	30yr 2.5% MBS pass through	2.50	104.27	2.8	-3.4	4.1	-0.04	1.37	1.90	1.5%	-4.4%	-18.9%
Agency MBS	30yr 2% MBS pass through	2.00	102.11	4.1	-3.6	5.5	0.74	1.56	1.74	2.5%	-5.6%	-21.2%
Agency CMBS	4yr Agy CMBS	3.05	109.00	4.0	0.2	4.3	0.91	0.91	0.91	4.1%	-4.0%	-11.3%
Agency CMBS	6yr Agy CMBS	2.48	108.09	6.2	0.5	6.7	1.23	1.23	1.23	6.5%	-6.0%	-16.8%
Agency CMBS	9yr Agy CMBS	2.29	107.16	8.6	0.9	9.5	1.50	1.50	1.50	9.1%	-8.2%	-22.4%
SBA	SBA Floater (Premium)	4.32	113.25	1.3	6.8	3.8	0.89	0.63	1.32	5.1%	-1.0%	-3.5%
NA CMBS	Non-Agency CMBS (AAA)	2.75	107.31	7.2	0.6	8.0	1.76	1.76	1.76	7.5%	-7.0%	-19.3%
NA RMBS	RMBS 30yr PT (AAA)	2.50	102.14	3.3	-3.5	4.3	0.80	1.87	2.18	0.7%	-8.1%	-23.1%
CLO	CLO AA	1.89	100.30	1.6	11.3	5.7	1.74	1.84	2.73	5.0%	-0.6%	-1.8%
CLO	CLO AAA	1.39	100.40	1.1	7.4	3.7	1.19	1.29	2.12	3.4%	-0.6%	-1.8%
Municipal	10yr Taxable Muni	1.63	100.18	9.3	1.0	10.0	1.61	1.61	1.61	9.8%	-8.9%	-24.1%
Municipal	15yr Taxable Muni	2.13	100.09	11.8	1.4	10.0	2.12	2.12	2.12	11.7%	-11.0%	-30.3%
Municipal	20yr Taxable Muni	2.50	100.44	13.4	1.7	10.0	2.45	2.45	2.45	12.8%	-12.3%	-34.0%
Corporate	5yr Fixed Corp (Banks)	1.07	100.00	4.9	0.3	5.0	1.07	1.07	1.07	5.0%	-4.8%	-13.5%
Corporate	Community Bank Sub Debt (BBB)	0.05	100.00	4.4	0.0	5.0	3.25	3.25	3.25	4.5%	-4.3%	-12.3%

Allocation		
Strategy 1	Strategy 2	Strategy 3
5%	0%	0%
10%	10%	5%
0%	0%	5%
10%	0%	0%
20%	15%	5%
0%	10%	0%
10%	0%	5%
20%	10%	10%
10%	10%	5%
0%	0%	5%
10%	10%	5%
0%	0%	5%
0%	0%	10%
0%	0%	10%
5%	0%	5%
0%	15%	5%
0%	15%	5%
0%	5%	0%
0%	0%	10%

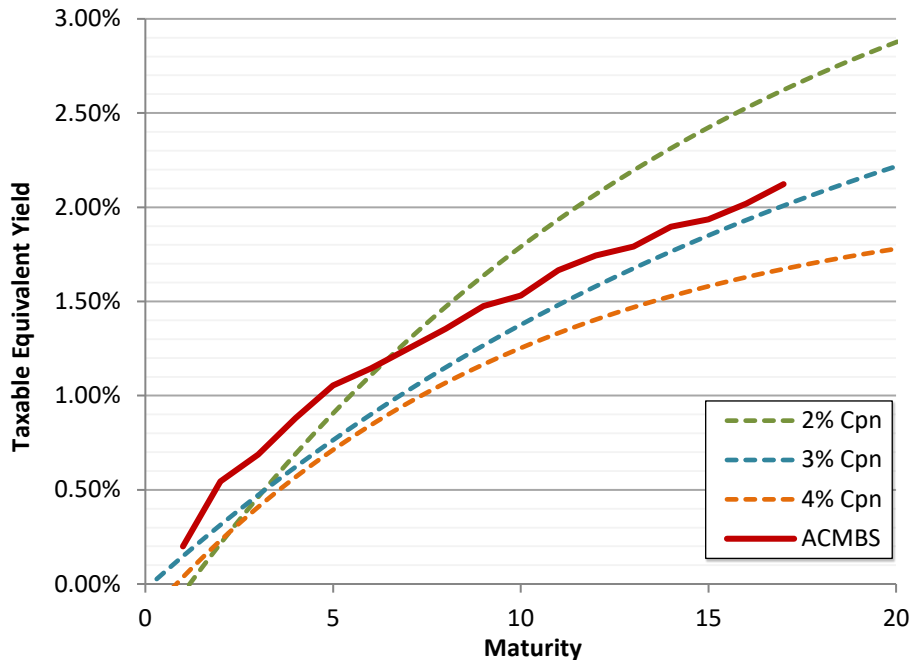
Strategy 1 Purch.	2.32	104.96	3.9	-0.9	4.2	0.88	1.13	1.31	3.6%	-4.5%	-15.0%
Strategy 2 Purch.	2.44	103.99	6.3	0.0	5.8	1.27	1.48	1.66	6.1%	-6.5%	-19.9%
Strategy 3 Purch.	2.05	103.35	4.8	1.7	5.7	1.45	1.64	1.91	5.2%	-5.0%	-14.9%

Difference	2.22	4.96	3.9	-0.9	4.2	1.78	1.03	0.21	3.6%	-4.5%	-15.0%
Difference	2.34	3.99	6.3	0.0	5.8	2.17	1.38	0.56	6.1%	-6.5%	-19.9%
Difference	1.95	3.35	4.8	1.7	5.7	2.35	1.54	0.81	5.2%	-5.0%	-14.9%

Spreads and Value: Tax Rate Sensitivity Analysis

- When considering intrasector relative value institutions must be cognizant of the impact higher federal taxes may have on taxable equivalent yields.
- However, the proposed increase from 21% to 28% is unlikely to make most tax-exempt municipals attractive vs. taxable alternatives. ACMBS still beats 3% coupon tax-exempts even at a 28% tax rate.
- Institutions must look to intermediate 2% coupon tax-exempts (and accept significantly more duration) before exempts confer a meaningful yield benefit vs. taxable munis.
- Higher coupon tax-exempts fail to pick-up yield vs. taxables, even at a 28% tax rate.

ACMBS vs. AA Tax-Exempt Municipals (TEY @ 28%)



Matrix of Tax-Exempt vs. Taxable Municipal Spreads

	2% Coupon		3% Coupon		4% Coupon	
	Federal Tax Rate		Federal Tax Rate		Federal Tax Rate	
	21.0%	28.0%	21.0%	28.0%	21.0%	28.0%
1Y	(0.10)	(0.08)	(0.10)	(0.09)	(0.19)	(0.18)
2Y	(0.19)	(0.17)	(0.12)	(0.09)	(0.19)	(0.18)
3Y	(0.16)	(0.12)	(0.14)	(0.10)	(0.20)	(0.16)
4Y	(0.15)	(0.08)	(0.22)	(0.17)	(0.27)	(0.22)
5Y	(0.16)	(0.08)	(0.28)	(0.22)	(0.32)	(0.25)
6Y	(0.15)	(0.05)	(0.34)	(0.26)	(0.39)	(0.32)
7Y	(0.17)	(0.05)	(0.40)	(0.31)	(0.47)	(0.39)
8Y	(0.14)	(0.02)	(0.42)	(0.31)	(0.49)	(0.39)
9Y	(0.11)	0.03	(0.43)	(0.32)	(0.53)	(0.42)
10Y	(0.05)	0.10	(0.42)	(0.30)	(0.53)	(0.42)
11Y	0.00	0.17	(0.41)	(0.27)	(0.54)	(0.43)
12Y	0.04	0.22	(0.41)	(0.27)	(0.56)	(0.44)
13Y	0.08	0.27	(0.40)	(0.25)	(0.58)	(0.45)
14Y	0.10	0.31	(0.39)	(0.24)	(0.61)	(0.47)
15Y	0.13	0.34	(0.41)	(0.24)	(0.64)	(0.50)
16Y	0.13	0.35	(0.42)	(0.25)	(0.69)	(0.55)
17Y	0.12	0.36	(0.44)	(0.26)	(0.74)	(0.60)
18Y	0.12	0.36	(0.46)	(0.28)	(0.79)	(0.64)
19Y	0.13	0.38	(0.46)	(0.27)	(0.83)	(0.67)
20Y	0.13	0.39	(0.46)	(0.26)	(0.86)	(0.70)
21Y	0.19	0.45	(0.42)	(0.22)	(0.85)	(0.69)
22Y	0.24	0.51	(0.38)	(0.18)	(0.84)	(0.68)
23Y	0.28	0.55	(0.34)	(0.12)	(0.83)	(0.67)
24Y	0.32	0.60	(0.31)	(0.09)	(0.83)	(0.66)
25Y	0.35	0.63	(0.28)	(0.06)	(0.83)	(0.66)

- Current Earnings Trends and Balance Sheet Sensitivity
 - Economic Commentary
 - Liability Rationalization
 - Excess Liquidity – Putting Cash to Work
 - ***Protecting TBV in Future Rate Environment – HTM Utilization / Hedging***
-

HTM Utilization

Utilization of Held-to-Maturity (HTM)

- As banks purchase longer duration securities in order to achieve spread over cash, concerns that Other Comprehensive Income (OCI) will be negatively impacted as prices decline in a rising rate environment have led to increased consideration around the utilization of Held-to-Maturity (HTM) designation.

HTM Utilization

Pros:

- HTM transfers fully mitigate OCI volatility, meaning TBV and TCE protection can be achieved on the existing portfolio.
- Net interest income is ultimately unchanged upon transfer, regardless of the future trajectory of rates. That said, ASC 320 requires an institution to separately track gains/losses on securities transferred into HTM and amortize those gains/losses over the security's life, which introduces additional accounting complexity.

Cons:

- HTM restricts an institution's ability to execute portfolio optimization trades in response to future events. Although there are eight "outs" to HTM, these are very narrow in scope and in practice larger accounting firms are extremely strict about their use.
- Securities carried at amortized cost, including those transferred into HTM, are subject to CECL requirements, which potentially introduces additional implicit and explicit costs.

HTM Data: Stifel PRA Data

- Based on a survey of 120 banks that routinely submitted portfolio data to our PRA system between Sept. 2020 and June 2021, the average % gain/loss in portfolios dropped from 2.72% on Dec. 2020 to 0.84% on March 2021 before rallying back to 1.23% on June 2021. In aggregate, the ~1.50% decline in unrealized gains drove a 0.22% decline in TCE/TA.

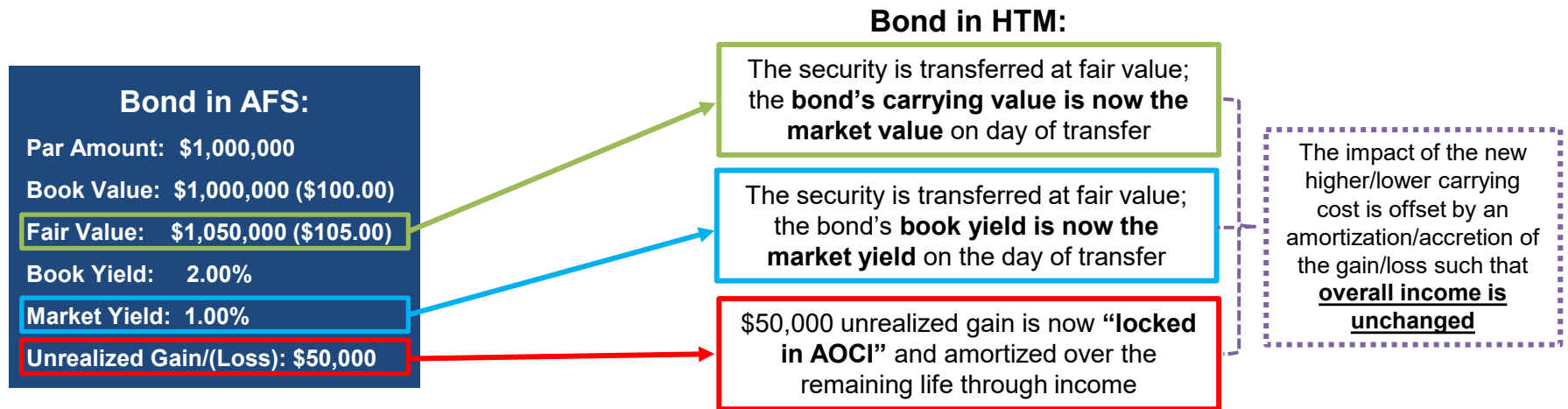
Institution Size	Metric	Dec. 31, 2020	March 31, 2021	June 30, 2021	Δ Since Dec. 31st
>\$10BN	% Gain/Loss	2.99%	1.11%	1.46%	(1.53%)
	\$ Gain/Loss	\$89,013	\$36,805	\$50,253	(\$38,760)
	TCE/ TA	9.62%	9.38%	9.43%	(0.19%)
\$5BN-\$10BN	% Gain/Loss	3.88%	1.69%	2.19%	(1.70%)
	\$ Gain/Loss	\$33,086	\$11,819	\$21,610	(\$11,476)
	TCE/ TA	9.61%	9.32%	9.44%	(0.16%)
\$1BN-\$5BN	% Gain/Loss	2.75%	0.92%	1.29%	(1.45%)
	\$ Gain/Loss	\$13,404	\$5,100	\$8,296	(\$5,108)
	TCE/ TA	10.02%	9.70%	9.82%	(0.20%)
\$500MM-\$1BN	% Gain/Loss	2.48%	0.71%	0.94%	(1.54%)
	\$ Gain/Loss	\$3,228	\$695	\$1,490	(\$1,739)
	TCE/ TA	10.13%	9.80%	9.89%	(0.24%)
<\$500MM	% Gain/Loss	2.47%	0.52%	1.01%	(1.46%)
	\$ Gain/Loss	\$1,622	\$444	\$807	(\$815)
	TCE/ TA	11.82%	11.42%	11.55%	(0.27%)
Totals	% Gain/Loss	2.72%	0.84%	1.23%	(1.50%)
	\$ Gain/Loss	\$20,171	\$7,898	\$11,715	(\$8,456)
	TCE/ TA	10.44%	10.11%	10.22%	(0.22%)

- However, institutions with above-average (>20%) HTM utilization saw significantly smaller TCE/TA declines:

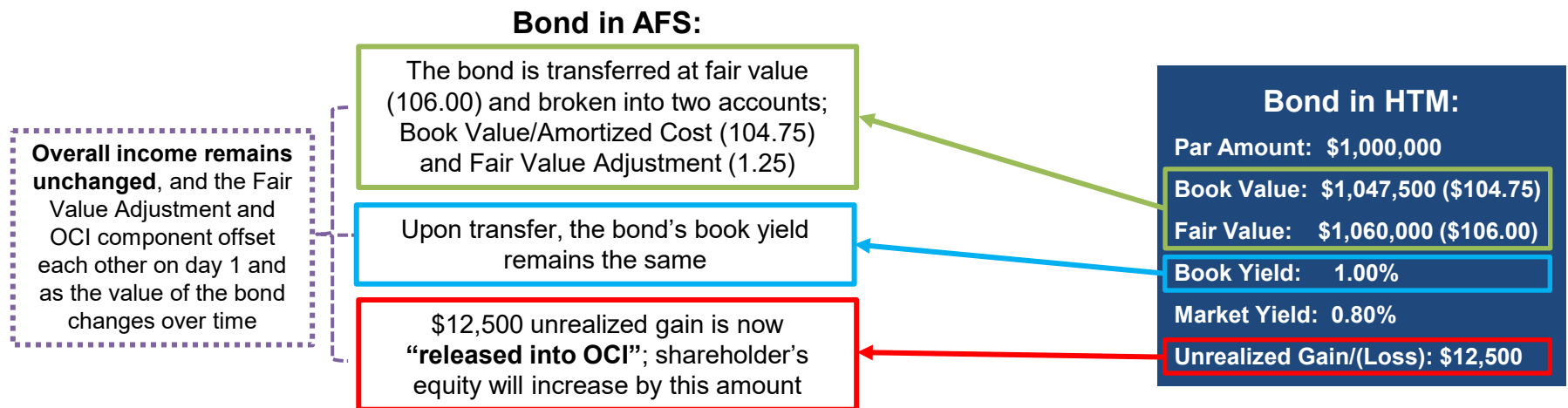
Institution Size	Δ TCE/ TA Since Sept. 30th		
	Dec. 31, 2020	March 31, 2021	June 30, 2021
0-20% HTM Utilization	0.01%	(0.33%)	(0.22%)
20-40% HTM Utilization	0.01%	(0.22%)	(0.16%)
40-60% HTM Utilization	0.04%	(0.11%)	(0.09%)

What happens when you transfer?

- What are the accounting implications when transferring a bond from **AFS** to **HTM** today?



- What are the accounting implications when transferring a bond from **HTM** to **AFS**?



FASB Proposes Last of Layer Hedging Expansion – HTM Reclass

- On May 5, the Financial Accounting Standards Board (FASB) released its proposed Accounting Standards Update (ASU) entitled “Derivatives and Hedging (Topic 815) – Fair Value Hedging – Portfolio Layer Method.”
 - Specifically, the current ‘single layer’ model would be expanded to ‘multiple layer’ hedge accounting model according to board discussion
 - This would expand the accounting model by allowing multiple swap tenors to hedge different durations of the underlying portfolio compared to current method of only one swap size and tenor
 - Using a multiple layer model would more closely align hedge accounting of entity’s risk management activities which would then provide better information to financial statement users according to board members
- **HTM Reclassification Opportunity**
- The proposed rule if finalized in its current form would also allow banks and financial institutions to reclassify debt securities from held to maturity (HTM) to available for sale (AFS) in transition if the reclassified securities would qualify for the portfolio layer method

“An entity would have the option to reclassify debt securities from held to maturity to available for sale in transition if the debt securities would qualify for hedge accounting under the portfolio layer method. The decision of which debt securities to reclassify should be made as of the date of adoption.”¹
- In order to “qualify for hedge accounting under the portfolio layer method”, the instruments have to be “prepayable” per the GAAP definition
- The proposal had a 60 day comment period on the standard closed on July 5, 2021. FASB’s deliberation on a potential final rule is forthcoming.

Strategic Considerations around Utilizing HTM

Potential Strategies:

1 Place New Purchases in HTM

Assuming this rule is finalized in the latter portion of 2021, one might consider classifying today's purchases as HTM, with the potential optionality to reclassify those instruments back into AFS upon implementation of this ruling if needed for liquidity or the need to take a gain/loss on sale.

This strategy would provide OCI protection in the interim within HTM, yet the potential to move out to AFS later if needed.

2 Move existing AFS securities into HTM

With the potential for rising rates, institutions have the opportunity to pick and choose which securities to place in HTM, often focusing on the most volatile securities while considering CECL reserves and other relevant factors.

Upon final rule adoption, one could reconsider the placement within HTM and move back to AFS if needed.

3 "Release & lock in" potential gains: Move to HTM today, move to AFS upon final rule adoption, and then move back to HTM

Consider the following scenario: Bonds are moved to HTM today, and in 6 months, the final rule is adopted and those bonds have unrealized gains in them.

Upon final adoption, the bonds could be moved back into AFS, thereby "releasing those gains" into OCI.

Once the gains have been released, they could be "locked in" by placing back into HTM such that the gain is frozen in OCI, and will amortize through income over the life of the bond, thereby boosting equity position, OCI and TBV.

1 Place New Purchases In HTM

SAMPLE

- By definition, putting cash to work in the fixed income portfolio, even in more conservative cash deployment allocations, puts additional tangible capital at risk and magnifies potential decline in ratios like TCE/TA and TBV per Share.
- In the generic example below, a \$828mm AFS securities portfolio at a \$4.5bn financial institution would see TCE/TA deteriorate from 10.00% to 8.14% in an up-300 parallel rate shock. Deploying \$113mm (10% of the base portfolio) in cash into AFS securities would amplify the decline by an additional 0.41%.
- At best, HTM utilization can only maintain current capital. **However, allocating 100% of purchases into HTM effectively provides free optionality to transfer the securities back upon adoption of FASB's Portfolio Layer Hedging rules.**

Current AFS Portfolio	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Market Value	911,117	868,635	828,227	788,614	750,019	712,999	677,947
Market Value Change \$	82,890	40,409	0	-39,613	-78,208	-115,228	-150,279
Market Value Change %	10.0%	4.9%	0.0%	-4.8%	-9.4%	-13.9%	-18.1%
Gain/Loss \$	94,878	52,397	11,988	-27,625	-66,220	-103,240	-138,291
Gain/Loss %	11.6%	6.4%	1.5%	-3.4%	-8.1%	-12.6%	-16.9%
10% Cash Deploy	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Market Value	126,622	119,911	112,976	104,651	96,164	88,146	80,793
Market Value Change \$	13,646	6,935	0	-8,325	-16,812	-24,830	-32,183
Market Value Change %	12.1%	6.1%	0.0%	-7.4%	-14.9%	-22.0%	-28.5%
100% AFS Allocation	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Market Value	1,037,739	988,546	941,203	893,265	846,183	801,145	758,740
Market Value Change \$	96,536	47,343	0	-47,938	-95,020	-140,058	-182,462
Market Value Change %	10.3%	5.0%	0.0%	-5.1%	-10.1%	-14.9%	-19.4%
TCE Analysis	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Current TCE Ratio	11.29%	10.63%	10.00%	9.37%	8.75%	8.14%	7.56%
100% AFS Allocation	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Pro Forma TCE Ratio	11.50%	10.74%	10.00%	9.24%	8.47%	7.73%	7.02%
Δ TCE Ratio After Cash Deploy (AFS)	0.21%	0.11%	0.00%	(0.13%)	(0.27%)	(0.41%)	(0.54%)
100% HTM Allocation	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Pro Forma TCE Ratio	11.29%	10.63%	10.00%	9.37%	8.75%	8.14%	7.56%
Δ TCE Ratio After Cash Deploy (HTM)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

- By implementing a joint approach that utilizes HTM on new purchases and transfers existing securities from AFS to HTM, a bank can limit book value degradation.
- Securities should be selected to provide the most book value protection for the smallest notional put in HTM. Preference should be given to instruments unlikely to be sold for qualitative considerations like CRA credit. Potential CECL concerns should also be noted, but reserves on longer municipal securities have generally not been material.
- In the generic example below, transferring 10% of the AFS portfolio (\$89mm) from AFS to HTM with a +300 px. vol. of 22% “protects” \$20.1mm in market value loss from hitting OCI. In turn, this preserves 0.33% TCE/TA in the +300 scenario.

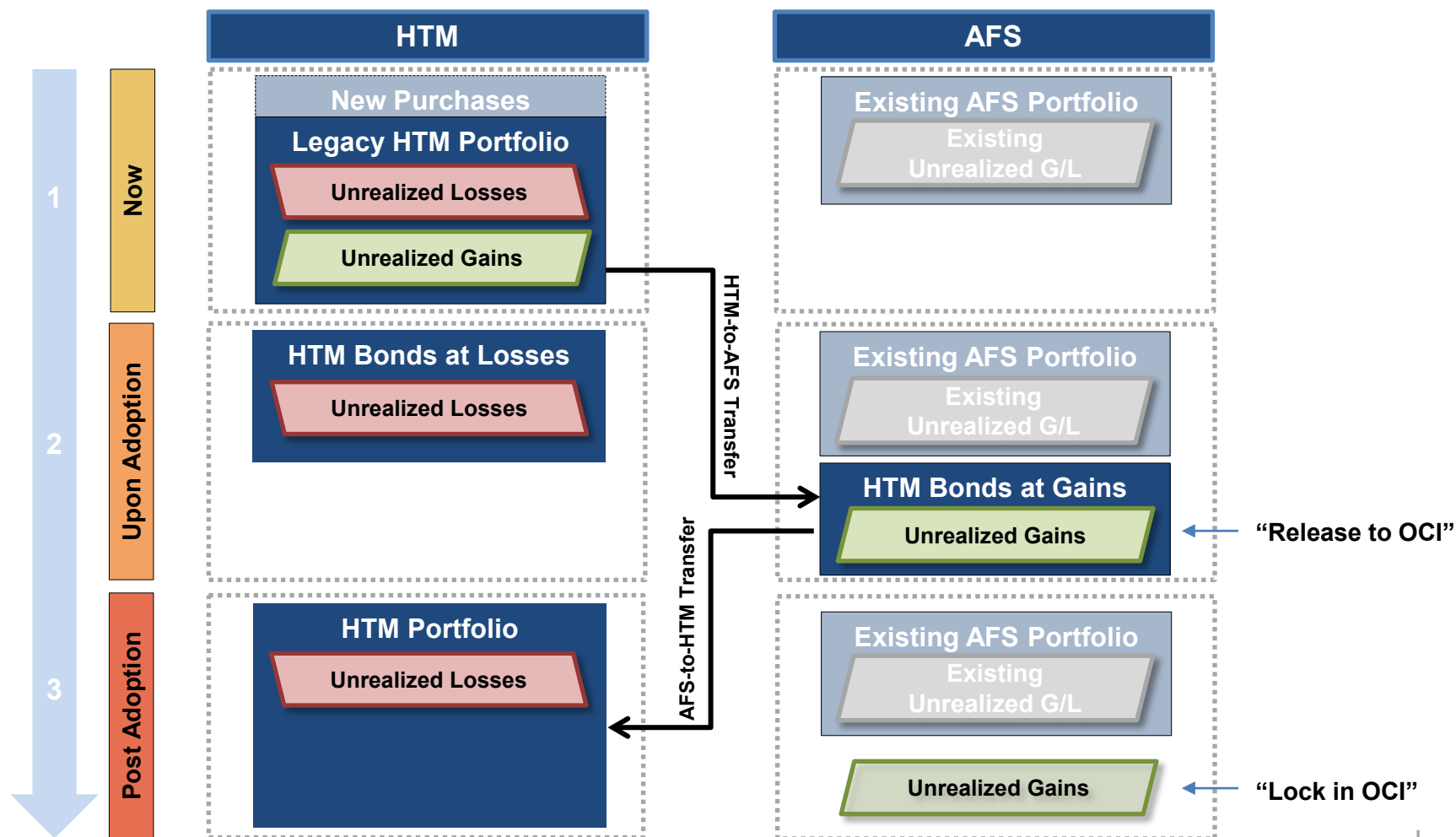
Current AFS Portfolio	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Market Value	911,117	868,635	828,227	788,614	750,019	712,999	677,947
Market Value Change \$	82,890	40,409	0	-39,613	-78,208	-115,228	-150,279
Market Value Change %	10.0%	4.9%	0.0%	-4.8%	-9.4%	-13.9%	-18.1%
Gain/Loss \$	94,878	52,397	11,988	-27,625	-66,220	-103,240	-138,291
Gain/Loss %	11.6%	6.4%	1.5%	-3.4%	-8.1%	-12.6%	-16.9%
HTM Transfer	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Market Value	104,877	96,733	89,066	81,840	75,122	68,983	63,418
Market Value Change \$	15,811	7,667	0	-7,226	-13,945	-20,083	-25,649
Market Value Change %	17.6%	8.6%	0.0%	-8.1%	-15.6%	-22.4%	-28.6%
Gain/Loss \$	15,273	7,129	-537	-7,763	-14,482	-20,621	-26,186
Gain/Loss %	17.0%	8.0%	-0.6%	-8.7%	-16.2%	-23.0%	-29.2%
Resulting HTM Portfolio	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Market Value	445,295	417,310	390,601	364,729	340,144	317,457	296,730
Market Value Change \$	54,694	26,709	0	-25,872	-50,456	-73,144	-93,870
Market Value Change %	14.0%	6.8%	0.0%	-6.6%	-12.9%	-18.7%	-24.0%
Gain/Loss \$	56,483	28,497	1,788	-24,083	-48,668	-71,355	-92,082
Gain/Loss %	14.5%	7.3%	0.5%	-6.2%	-12.5%	-18.4%	-23.7%
Base TCE Analysis	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
TCE Ratio	11.29%	10.63%	10.00%	9.37%	8.75%	8.14%	7.56%
Post-Transfer TCE Analysis	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Pro Forma TCE Ratio	11.05%	10.51%	10.00%	9.49%	8.97%	8.47%	7.99%
Δ TCE Ratio After HTM Transfer	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
	(0.24%)	(0.12%)	0.00%	0.12%	0.23%	0.33%	0.43%

Institutions can take advantage of the pending FASB HTM transfer opportunity to “release and lock in” gains currently sitting idle in held-to-maturity. The strategy is a three step process:

Step 1: Place all new purchases in HTM and evaluate legacy HTM positions in anticipation of the Portfolio Layer Method ASU.

Step 2: Upon Adoption of the ASU, transfer all securities at gains from HTM to AFS.

Step 3: Post-adoption, transfer those securities back from AFS to HTM.



- In the generic example below, a \$4.5bn institution with a \$1.13bn securities portfolio split 85% AFS and 15% HTM has \$5.9mm in gains sitting idle in the held-to-maturity portfolio that are not additive to capital or TBV.
- Upon adoption of the portfolio layer hedging rule, the institution can transfer all prepayable securities out of HTM and into AFS without penalty, thereby “releasing” the \$5.9mm gain into OCI. This has the immediate impact of adding 0.09% to the bank’s current TCE/TA ratio.
- Having released these gains, the bank can then “lock in” the additional capital and protect against higher rates by transferring the securities back to HTM without penalty. Additional bonds can be added to HTM to increase the protection.

Current AFS Portfolio	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Market Value	911,117	868,635	828,227	788,614	750,019	712,999	677,947
Market Value Change \$	82,890	40,409	0	-39,613	-78,208	-115,228	-150,279
Market Value Change %	10.0%	4.9%	0.0%	-4.8%	-9.4%	-13.9%	-18.1%
Gain/Loss \$	94,878	52,397	11,988	-27,625	-66,220	-103,240	-138,291
Gain/Loss %	11.6%	6.4%	1.5%	-3.4%	-8.1%	-12.6%	-16.9%
Current HTM Portfolio	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Market Value	340,418	320,577	301,535	282,889	265,023	248,474	233,313
Market Value Change \$	38,884	19,042	0	-18,645	-36,512	-53,061	-68,222
Market Value Change %	12.9%	6.3%	0.0%	-6.2%	-12.1%	-17.6%	-22.6%
Gain/Loss \$	41,209	21,368	2,326	-16,320	-34,186	-50,735	-65,896
Gain/Loss %	13.8%	7.1%	0.8%	-5.5%	-11.4%	-17.0%	-22.0%
HTM-AFS-HTM Gains Transfer	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Market Value	209,138	197,991	187,273	176,547	166,181	156,396	147,332
Gain/Loss \$	27,801	16,654	5,936	-4,790	-15,156	-24,941	-34,005
Gain/Loss %	15.3%	9.2%	3.3%	-2.6%	-8.4%	-13.8%	-18.8%
Base TCE Analysis	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
TCE Ratio	11.29%	10.63%	10.00%	9.37%	8.75%	8.14%	7.56%
TCE Analysis	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Pro Forma TCE Ratio	11.38%	10.73%	10.09%	9.46%	8.84%	8.24%	7.66%
Δ TCE Ratio After HTM Transfer	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
	0.09%	0.09%	0.09%	0.10%	0.10%	0.10%	0.10%

CECL Consideration

- ASU 2016-13 Current Expected Credit Losses (CECL) applies to all instruments carried at amortized cost, including securities designated as held-to-maturity.
- By definition, this imposes both implicit and explicit costs on HTM transfers. These cost should be weighed with accounting, margin, and liquidity considerations, but are generally not a material concern.
- Mining 2Q2021 data from Stifel's CECL-for-HTM platform suggests that for investment grade general obligation municipal securities the implicit reserve costs are generally immaterial for Aa1-Aa3 rated bonds and manageable for A1-A3 rated securities. Furthermore, a syndicate solution like Stifel's can help defray the explicit administrative costs.

Portfolio Hedging

Portfolio hedging – strategy overview

- A pay fixed/receive floating interest rate swap can be overlaid against existing AFS securities exposures to protect a portion of the current unrealized gain against a potential rising or steepening rate environment
- Spot or deferred starting hedge structures that hedge a portion of the overall exposure can qualify for partial term fair value hedge accounting, essentially removing a portion of the variability from OCI going forward

In the following slides, a hedge proposal is presented for ~177mm aggregate notional of 2y deferred starting structures, which protect against losses in rates up on long Municipals and ACMBS

~177mm notional amounts was determined after reviewing the portfolio at the CUSIP level for positions that are optimal hedge candidates

- AFS, no ERPs, no housing bonds with uncertain amortization, targeting longer municipals and largest % change in +300 scenario
- Example: 4.5b assets, 10.00% TCE ratio, 828mm AFS portfolio with -4.8% +100 px risk
 - Proposed hedge structure: 177mm notional, in 2y for 5.5y (weighted average structure)
 - 177mm securities before hedge: 1.88% fixed yield, -20.9% price risk in +300
 - 177mm securities after hedge: fixed yield of 1.88% for two years, then floating yield of SOFR + 78 basis points (up to earlier of call date/ defeasance maintenance window or maturity date/10y), -8.4% price risk in +300

(1) Indicative pricing as of 7/26/21 for SOFR swaps

(2) Deferred Start in 2y for 5.5y is the weighted average structure;

(3) Information presented above regarding interest rate derivatives is considered general and factual. Please see further disclosures on the last page of this presentation.

Proposed Hedging Strategies- Deferred Start in 2y for 5.5y

Resulting TBV Protection and Portfolio Duration Offset

SAMPLE

- Tables below outline the protection offered by the hedging strategy, at AFS portfolio and total balance sheet levels. As shown, the \$177m hedge provides 14bps of TCE/TA protection in +100 and 40bps of protection in the +300 scenario.

AFS Portfolio	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Market Value	911,117	868,635	828,227	788,614	750,019	712,999	677,947
Market Value Change \$	82,890	40,409	0	-39,613	-78,208	-115,228	-150,279
Market Value Change %	10.0%	4.9%	0.0%	-4.8%	-9.4%	-13.9%	-18.1%
Gain/Loss \$	94,878	52,397	11,988	-27,625	-66,220	-103,240	-138,291
Gain/Loss %	11.6%	6.4%	1.5%	-3.4%	-8.1%	-12.6%	-16.9%
Hedging Proposal	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Hedge	-20,768	-9,885	0	8,966	17,087	24,431	31,060
Resulting Market Value Change \$	62,123	30,524	0	-30,647	-61,120	-90,797	-119,219
Resulting Market Value Change %	7.5%	3.7%	0.0%	-3.7%	-7.4%	-11.0%	-14.4%
Resulting Gain/Loss \$	74,111	42,512	11,988	-18,659	-49,132	-78,809	-107,231
Resulting Gain/Loss %	9.1%	5.2%	1.5%	-2.3%	-6.0%	-9.7%	-13.1%
Offset Ratio	25.1%	24.5%	0.0%	22.6%	21.8%	21.2%	20.7%
TCE Analysis	Dn 200	Dn 100	Base	Up 100	Up 200	Up 300	Up 400
Base TCE Ratio	11.29%	10.63%	10.00%	9.37%	8.75%	8.14%	7.56%
Hedge Impact (After Tax)	-16,407	-7,809	0	7,083	13,499	19,300	24,537
Resulting TCE Ratio	10.97%	10.48%	10.00%	9.51%	9.02%	8.54%	8.08%
Δ TCE Ratio After Hedge	(0.32%)	(0.15%)	0.00%	0.14%	0.28%	0.40%	0.51%

(1) Indicative pricing as of 7/26/21 for SOFR swaps

(2) Deferred Start in 2y for 5.5y is the weighted average structure;

(3) Information presented above regarding interest rate derivatives is considered general and factual. Please see further disclosures on the last page of this presentation.

(4) Current balance sheet information sourced from S&P Global Intelligence, as of 1q21 for sample institution

(5) After tax assuming a 21% marginal federal tax rate

Pros vs Cons of HTM Transfer and Portfolio Hedging

- TBV and TCE protection can be accomplished on the existing portfolio via two mechanisms: a portfolio hedging strategy or a transfer from available-for-sale (AFS) into held-to-maturity (HTM). A similar level of protection can be accomplished by either method, but each comes with a unique set of benefits and drawbacks.

HTM Transfer

Pros:

- HTM transfers fully mitigate OCI volatility, meaning a smaller overall strategy is required to accomplish a given level of TBV protection vs. portfolio hedging.
- Income is ultimately unchanged vs. AFS regardless of the future trajectory of rates. That said, FAS 115 requires an institution to separately track gains/losses on securities transferred into HTM and amortize those gains/losses over the security's life, which introduces additional accounting complexity.

Cons:

- HTM severely restricts an institution's ability to execute portfolio optimization trades in response to future events. Although there are eight "outs" to HTM, these are very narrow in scope and in practice larger accounting firms are extremely strict about their use.
- Securities carried at amortized cost, including those transferred into HTM, are subject to CECL requirements, which potentially introduces additional implicit and explicit costs.

Portfolio Hedging

Pros:

- Unlike HTM transfers, which are binary on each line-item, hedging structures can be customized line-by-line to fit each institution's objectives.
- Swaps can be unwound, so portfolio hedges are less far less restrictive than HTM transfers.
- While the ultimate yield/income impact is contingent on future rate moves, the potential exists for income appreciation in rates-up scenarios.

Cons:

- Because price volatility is only partially mitigated with partial term hedges, larger notional amounts are required to achieve the same level of OCI protection vs. HTM transfers. However, complexity is capped by shortcut accounting treatment.
- Not all items qualify for hedging or shortcut hedge accounting treatment, putting a practical cap on the amount of TBV protection that can be accomplished in any given portfolio.

- **A blended approach of HTM utilization and hedging strategies could ultimately provide the optimal result**

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