



Regulatory Compliance

Risk Management Strategy & Solutions •

ALM Strategies for Unprecedented Times

May 21, 2020

Frank L. Farone, Managing Director Joseph C. Kennerson, Managing Director



- Low Rates, Economic Uncertainty, Shrinking Margins & No End in Sight
- Quantifying Earnings Shortfall Ahead-Identifying Strategies to Offset
- Important Considerations for Strategy Development:
 - Liquidity Position-Step #1
 - Deposit Strategies
 - Wholesale Funding
 - Investment Strategies & Interest Rate Risk
 - Credit Risk/Capital Management
 - Derivatives



The Journey: Bond Market Flashing Trouble Ahead

Pre-Pandemic Bond & Stock Markets at Odds...both not right!



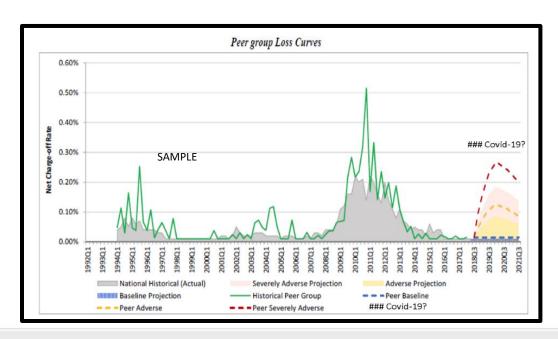


5 Year Treasury Rate Crashes-A Critical Banking Yield Point





- Net Interest Margin
 - Asset Yields
 - Loan Volume
 - Deposit & funding Costs
- Liquidity
 - Contingency Liquidity
 - Pre-emptive Actions
 - Near Term Forbearance Impact?
 - PPP Lending
- Credit
 - What Could Happen if...?
 - ALLL?
- Capital
- Interest Rate Risk
 - Low(er?) Rate Impact



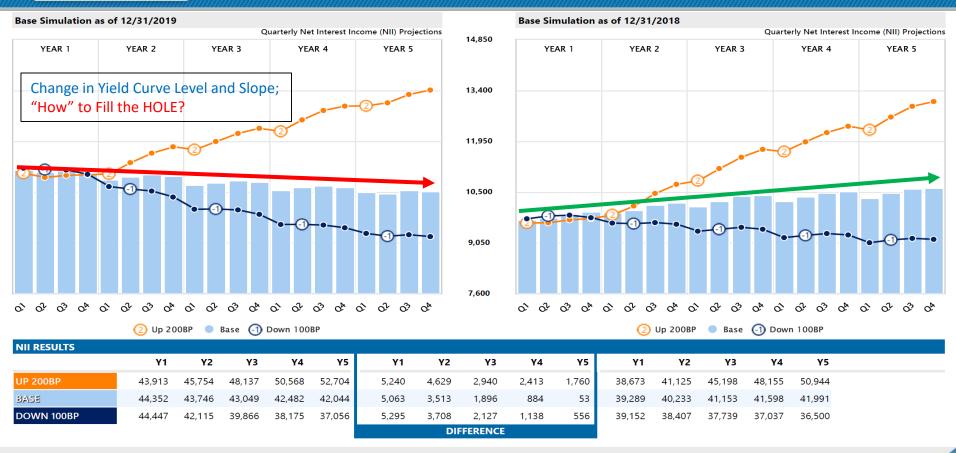


QUANTIFYING EARNINGS SHORTFALL AHEAD-IDENTIFYING STRATEGIES TO OFFSET

(FLASHBACK 2019 & NOW WHAT TO DO)



Year End 2019- Over Year NII Comparison-Typical Profile



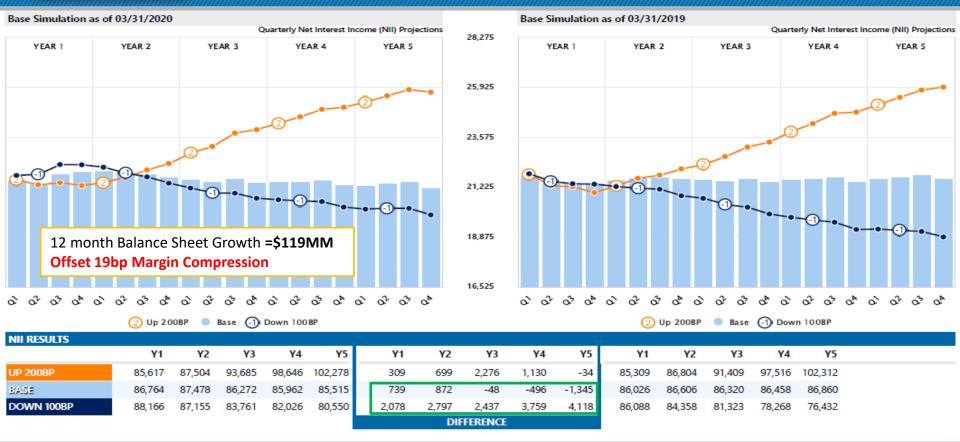


Quarterly Balance Sheet Comparison & 1 Year Look Back

LUCTORICAL DALANCE CU	FET COMMINADADA	CON													
HISTORICAL BALANCE SHI		31/2020			2/24/	2020 vs. 12/3	31/2010				3.4	31/2020	rs. 3/31/2019)	
	3/	31/2020	% of	:	3/31/	2020 vs. 12/3 % of	-				3/	% of	3. 3/3 1/2011	-	% o
	Balance	Rate	Assets		e Rat			L Rate Δ		Balance	Rate		Balance Δ	Rate Δ	Assets L
Investments	1,047,312	2.37%	34%	6 799,179	9 2.91	% 28%	248,133	3 -0.53%		959,007	3.27%	32%	88,305	-0.89%	29
Loans	1,869,958	4.13%	60%	6 1,859,590	4.30	% 65%	10,368	8 -0.17%	1	1,843,992	4.42%	62%	25,966	-0.29%	-29
Other Assets	186,023	0.00%	6%	6 182,372	2 0.00	0% 6%	3,652	0.00%		180,896	0.00%	6%	5,128	0.00%	09
Total Assets	3,103,293	3.29%	100%	2,841,141	3.63	% 100%	262,152	2 -0.34%	2,	,983,895	3.78%	100%	119,398	-0.49%	09
Non Maturity Deposits	2,106,299	0.28%	68%	6 1,982,639	9 0.43	3% 70%	123,659	9 -0.15%	1	1,986,838	0.55%	67%	119,461	-0.27%	19
Time Deposits	393,439	1.60%	13%)% 14%	-			385,589	1.65%	13%	7,850	-0.05%	09
Borrowings	225,000	0.63%	7%)% 396	150,000	0 -1.38%		230,000	2.07%	8%	-5,000	-1.44%	09
Other Liabilities	22,280	0.00%	1%	6 19,359	9 0.00)% 1%	2,920	0.00%		28,746	0.00%	1%	-6,466	0.00%	09
Equity	356,275	0.00%	11%	353,528	0.00)% 12%	2,747	7 0.00%		352,722	0.00%	12%	3,553	0.00%	0%
Total Liabilities & Equity	3,103,293	0.44%	100%	2,841,141	0.60	% 100%	262,152	2 -0.16%	2,	,983,895	0.74%	100%	119,397	-0.30%	0%
Balance Sheet Spread		2.85%			3.04	%		-0.18%			3.05%			-0.19%	
N															
Net Interest Income Sensit		(24/2020			2.42	1/2020	2/24/224				2.12	1/2020	2/24/2245		
	3,	/31/2020			3/3	1/2020 vs. 1	2/31/2019				-	-	. 3/31/2019		
Year 1 NII Projections			from Base		NIII	% ∆ from Yr 1 Base	ΝΙΙΔ	EAR Δ				% ∆ from Yr 1 Base	ΝΙΙΔ	EAR A	
UP 200BP	85,6		-1.3%		82,603	-2.2%	3,014	0.8%			85,309	-0.8%	309	-0.5%	
BASE	86,7		4.50-		84,419		2,345	2.4			86,026		739		
DOWN 100BP	88,1		1.6%	HIGHER NII —	83,976	-0.5%	4,190	2.1%			86,088	0.1%	2,078	1.5%	
Year 2 NII Projections			from Base	HIGHER IVII		% Δ trom Yr 1 Base	1					% Δ from Yr 1 Base			
UP 200BP	87,5		0.9%		83,760	-0.8%	3,744	1.6%			86,804	0.9%	699	-0.1%	
BASE	87,4		0.8%		84,433	0.0%	3,045	0.8%			86,606	0.7%	872	0.1%	
DOWN 100BP	87,1		0.5%		80,200	-5.0%	6,955	5.4%			84,358	-1.9%	2,797	2.4%	
2 Year Cumulative NII	3.7		from			% Δ from						% Δ from	,		
Projections			Base			Base						Base			
UP 200BP	173,1	121 -	-0.6%		166,363	-1.5%	6,758	0.8%		1	172,113	-0.3%	1,008	-0.3%	
BASE	174,2	242			168,853		5,389			1	172,632		1,610		
DOWN 100BP	175,3		0.6%		164,176	-2.8%	11,145	3.4%		1	170,446	-1.3%	4,875	1.9%	



Growth Year Over Year "Filled the Hole"



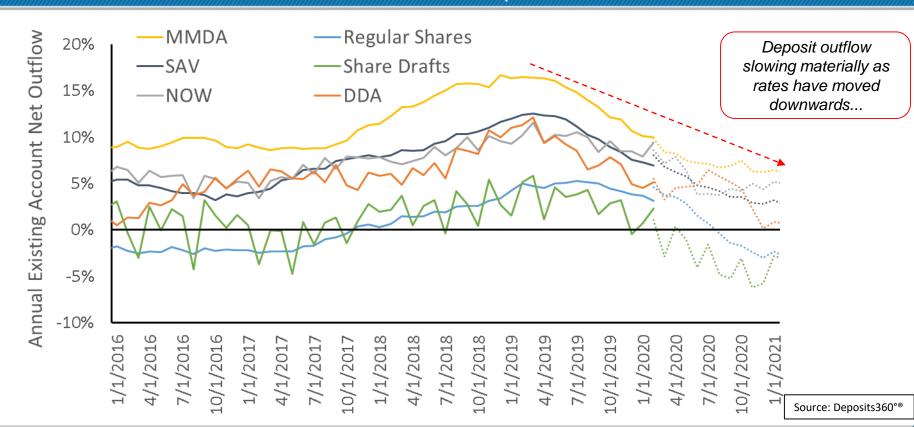


THOUGHTS ON DEPOSITS



Deposit Decay Projections

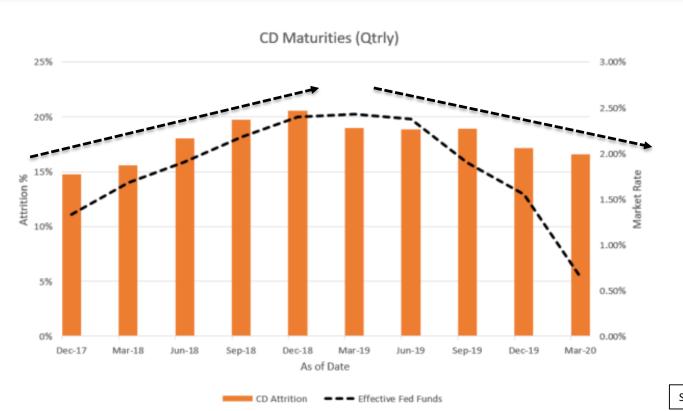
Deposits 360° Cross Institutional Database





CD Maturity Retention vs. Attrition

Deposits360°® Cross Institutional Database



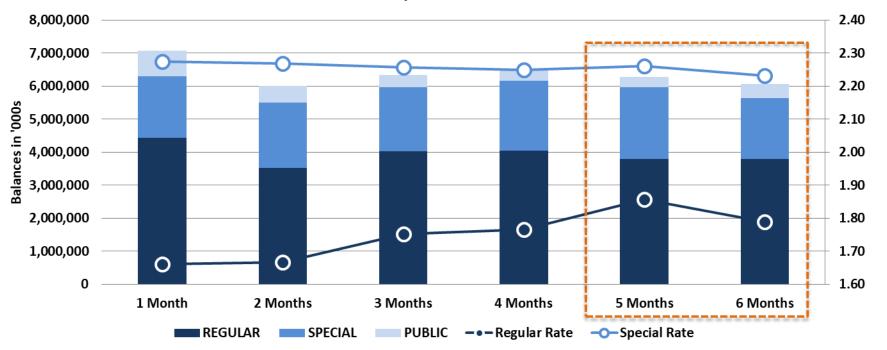
Source: Deposits360°®



Strategize on Upcoming CD Maturities

Sourced by DCG Data as of 12/31

Time Deposit Maturities



Source: Deposits360°®



CDs Maturing 90 days

BALANCE: \$52,014

CURRENT RATE: 1.25%

RATE DECREASE

RUNOFF PROTECTED

	0.25%	0.50%	0.75%
15.00%	2.67%	4.08%	5.50%
30.00%	1.83%	2.42%	3.00%
45.00%	1.56%	1.86%	2.17%

Annualized NII Impact (000s)

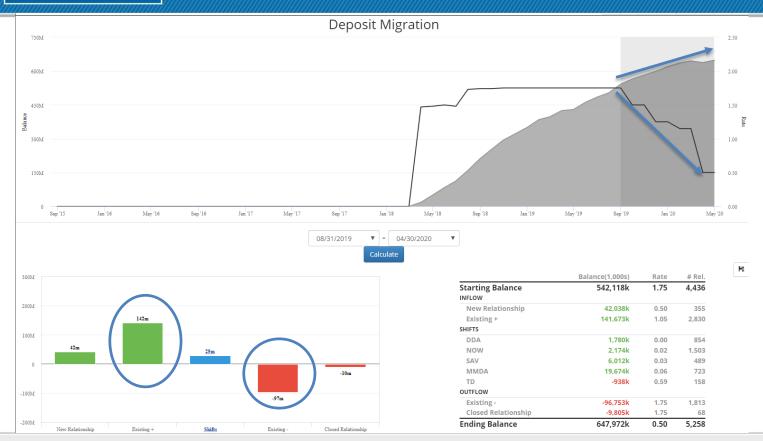
\$130

\$260

\$390



Premium MMDA Example



Source: Deposits360°®





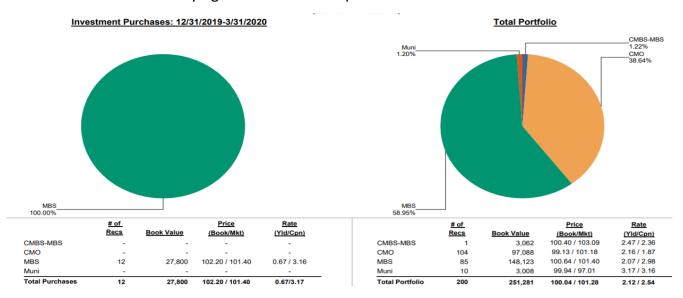
- Wholesale Funding
- Investments

- Lending
- Derivatives



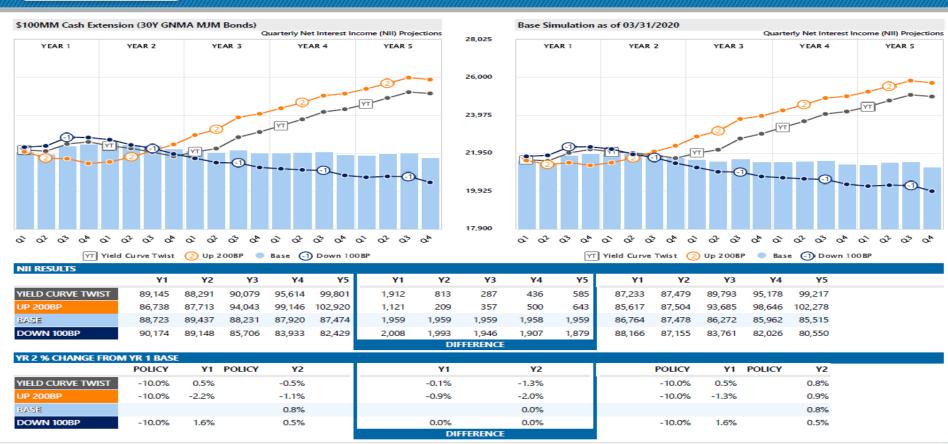
Strategic Discussion - Investments

- Discuss Options in the Current Market Risk/Return of Different Sectors
 - Potential Unrealized Loss If/When Rates Rise...have discussion now
- What is Goal if Investing Today?
 - Credit, interest rate and liquidity risk
 - ☐ Influence of the Federal Reserve buying securities in the open market

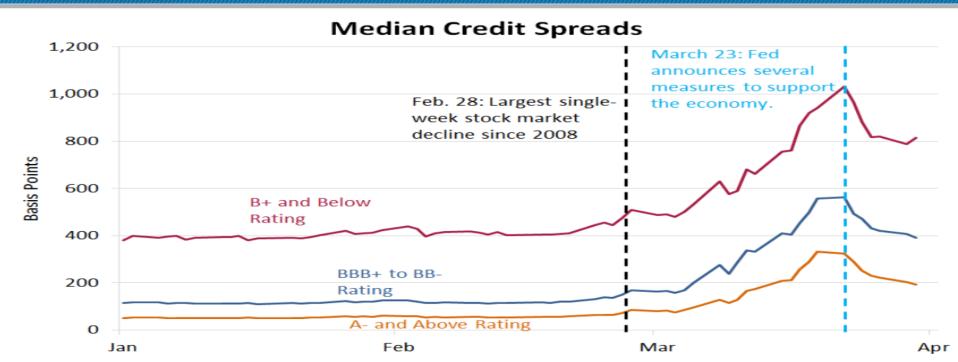




\$100MM MJM Jumbo Purchase @\$101 (compare to Loans)







NOTES: For the credit spread, the authors combined bond prices from TRACE (FINRA) with bond-level information from Mergent FISD and applied methodology from the 2012 paper "Credit Spreads and Business Cycle Fluctuations" by economists Simon Gilchrist and Egon Zakrajsek.

SOURCES: TRACE (FINRA), Mergent FISD and authors' calculations.

FEDERAL RESERVE BANK of ST. LOUIS



Libor Swap Rate Change and Credit Spread Change

2/1/2020

BofA BBB US Corporate Index OAS vs. 1 Month LIBOR Swap Rates

Term	Swap Rate	BBB Credit Spread	Hypothetical Rate
3 Year	1.22%	1.40%	2.62%
5 Year	1.21%	1.40%	2.61%
7 Year	1.25%	1.40%	2.65%
10 Year	1.34%	1.40%	2.74%

4/30/2020

Term	Swap Rate	BBB Credit Spread	Hypothetical Rate
3 Year	0.23%	2.80%	3.03%
5 Year	0.31%	2.80%	3.11%
7 Year	0.42%	2.80%	3.22%
10 Year	0.54%	2.80%	3.34%

What is your perception on how loan pricing has moved?



Derivatives: A Tool for ALM Managers...size does not matter!

Financial Institutions Group - Market Update

Friday, May 15, 2020

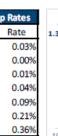
Chatham FINANCIAL

Index Rates							
Term	Rate						
1m LIBOR	0.172%						
3m LIBOR	0.381%						
6m LIBOR	0.659%						
12m LIBOR	0.755%						
Prime	3.250%						
Eff. Fed Funds	0.050%						
SOFR Rate	0.050%						

0.75%

Treasury Rates Term Rate	
	e
2.1.4	
3 Month Bill 0.10% 1 Y	e
6 Month Bill 0.13% 2 Y	e
2 Year Note 0.15% 3 Y	e
3 Year Note 0.18% 4 Y	e
5 Year Note 0.31% 5 Y	e
10 Year Note 0.64% 7 Y	e
30 Year Bond 1.33% 10	Υ

Fed Funds Sv	vap Rates
Term	Rate
1 Year	0.03%
2 Year	0.00%
3 Year	0.01%
4 Year	0.04%
5 Year	0.09%
7 Year	0.21%
10 Year	0.36%





1m LIBOR Swap Rates									
Term	Bullet		Amortization Period						
renn	bullet	10	15	20	25	30			
1	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%			
2	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%			
3	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%			
4	0.19%	0.19%	0.19%	0.19%	0.19%	0.19%			
5	0.25%	0.23%	0.24%	0.25%	0.25%	0.25%			
7	0.38%	0.32%	0.35%	0.36%	0.36%	0.37%			
10	0.53%	0.36%	0.46%	0.49%	0.50%	0.51%			
11	0.56%		0.48%	0.52%	0.53%	0.54%			
12	0.59%		0.49%	0.54%	0.56%	0.57%			
13	0.62%		0.50%	0.56%	0.58%	0.59%			
14	0.64%		0.50%	0.57%	0.60%	0.61%			
15	0.66%		0.50%	0.58%	0.61%	0.63%			
20	0.73%			0.58%	0.65%	0.68%			
25	0.74%				0.64%	0.68%			

		3m Li	BOR Swap	Kates			
Term	Bullet		Amo	rtization P	eriod		Π,
Term	bullet	10	15	20	25	30	
1	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	
2	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
3	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%	
4	0.28%	0.28%	0.28%	0.28%	0.28%	0.28%	
5	0.34%	0.32%	0.33%	0.34%	0.34%	0.34%	
7	0.46%	0.41%	0.43%	0.45%	0.45%	0.45%	
10	0.61%	0.45%	0.54%	0.57%	0.59%	0.59%	
11	0.65%		0.56%	0.60%	0.62%	0.63%	
12	0.68%		0.58%	0.62%	0.64%	0.65%	
13	0.70%		0.59%	0.64%	0.66%	0.68%	
14	0.73%		0.59%	0.66%	0.68%	0.70%	
15	0.74%		0.58%	0.62%	0.70%	0.71%	
20	0.81%			0.67%	0.74%	0.76%	
25	0.83%				0.72%	0.77%	
1							

3/20	3/2/	4/3 4/	47.	17 4/2	9 3/1	3/0	3/13
		PRIME Swap Rates					
	Term	Bullet		Amo	rtization P	eriod	
30	rem	bullet	10	15	20	25	30
0.30%	1	3.23%	3.23%	3.23%	3.23%	3.23%	3.23%
0.25%	2	3.19%	3.19%	3.19%	3.19%	3.19%	3.19%
0.25%	3	3.18%	3.18%	3.18%	3.18%	3.18%	3.18%
0.28%	4	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%
0.34%	5	3.25%	3.24%	3.24%	3.24%	3.25%	3.25%
0.45%	7	3.34%	3.30%	3.32%	3.33%	3.34%	3.34%
0.59%	10	3.46%	3.33%	3.41%	3.43%	3.44%	3.45%
0.63%	11	3.49%		3.43%	3.46%	3.47%	3.48%
0.65%	12	3.52%		3.44%	3.48%	3.49%	3.50%
0.68%	13	3.54%		3.45%	3.49%	3.51%	3.52%
0.70%	14	3.56%		3.45%	3.50%	3.53%	3.54%
0.71%	15	3.58%		3.44%	3.51%	3.54%	3.55%
0.76%	20	3.63%			3.51%	3.57%	3.59%
0.77%	25	3.65%				3.56%	3.60%
0.76%	30	3.65%					3.59%















Educational Resources

- Access DCG's COVID-19 Webinar archive at <u>darlingconsulting.com/speaking/webinars/</u>
- ◆ Learn more about Liquidity360°® at <u>darlingconsulting.com/alm-services/liquidity-solutions/liquidity360/</u>

Joseph C. Kennerson

Managing Director

Darling Consulting Group

jkennerson@darlingconsulting.com

Cell: 603-498-5852