

YIELD ANALYSIS

2025

2027

2029

July 9, 2019

	U.S. Treasury 1	Aunicipal Bond	nicipal Bond Yields ¹			U.S. Agency Yields - Active Bonds								
Coupoi	n Maturity	YTM	Maturity	YTM	Tax-Equiv. ²		Agency	Coupon	Mat	urity	Price	YTM	To Muni (bp)	
0.000%	06/18/20	1.99%	07/08/20	1.24%	1.78%	1	FNMA	1.500%	06/2	22/20	\$99.53	2.01%	+23	
1.625%	06/30/21	1.88%	07/08/21	1.27%	1.81%		FHLB	1.875%	07/0	7/21	\$99.84	1.96%	+15	
1.750%	06/15/22	1.83%	07/08/22	1.28%	1.82%		FHLB	2.375%	06/1	0/22	\$101.39	1.88%	+6	
2.625%	06/30/23	1.85%	07/08/23	1.30%	1.86%		FHLMC	2.750%	06/1	.9/23	\$103.22	1.90%	+4	
1.750%	06/30/24	1.85%	07/08/24	1.32%	1.89%		FHLB	2.875%	06/1	4/24	\$104.57	1.90%	+1	
2.375%	05/15/29	2.05%	07/08/29	1.62%	2.31%		FHLB	2.750%	06/0	08/29	\$103.23	2.38%	+7	
2.875%	05/15/49	2.53%	07/08/49	2.39%	3.41%		FFCB	3.580%	04/1	1/47	\$109.22	3.06%	-35	
					Curre	nt Y	ield Curves							
	U.S.		High-Grade Municipal Bonds				U.S. Agencies							
5.00%				5.00% -					5.00%					
3.75% -				3.75% -					3.75% -					
2.50% -				2.50% -					2.50% -					
1.25% -	****			1.25% -	****				1.25% -	***				
0.00%				0.00%					0.00%					
201	3 2026	2034	2042 205	50 2018	2026	200	34 2042	2050	2019	2025	2031	2037	2043	
		Corp	oorate Bond Yields		Bullet & Callable Agency Bond Yields ³									
	Description			YTM To Treasury (b)			Des	cription	Call	Date	Price	YTM	YTW	
WFC (A2/A-) 2.1% 7/2	6/2021	\$99.39	2.41%			FHLB 2.58% 3/20/2020		09/2		\$100.05	2.44%	2.44%	
,	A2/A-) 3.72% 8/2		\$100.75	3.30%	+146		FHLB 1.5% 6/30/2021			.6/19	\$97.72	2.70%	2.70%	
,	A2/A-) 3.11% 8/2		\$100.00 \$105.53	3.04%	+119	FHLMC 2.82% 5/20/2024 FHLB 3.04% 2/28/2029		11/2		\$100.10	2.79%	2.53%		
MS (A	3/BBB+) 4.05% 3	3.33%	+128	-	FHLB 3.04%	2/28/2029	07/1	.6/19	\$99.21	3.13%	3.14%			
6.00%	7						6.00%							
4.000/	4.009/													
4.00%	1	+				4.00%								
2.00%	-	-					2.00% -	+		+			•	
0.00%		1	,		,									
1	2020	2022	2024	2026	2028	1	0.00%	1	-	-	-	1 1	-	

2019