

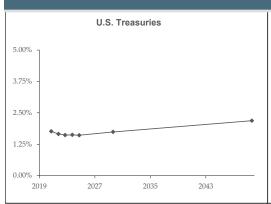
YIELD ANALYSIS

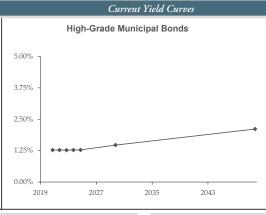
October 1, 2019

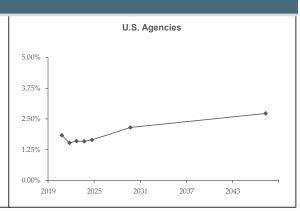
U.S. Treasury Yields			
Coupon	Maturity	YTM	
0.000%	09/10/20	1.76%	
1.500%	09/30/21	1.66%	
1.500%	09/15/22	1.62%	
2.875%	09/30/23	1.62%	
1.500%	09/30/24	1.61%	
1.625%	08/15/29	1.74%	
2.250%	08/15/49	2.19%	

Municipal Bond Yields ¹				
Maturity	YTM	Tax-Equiv. ²		
09/30/20	1.27%	1.82%		
09/30/21	1.27%	1.82%		
09/30/22	1.27%	1.81%		
09/30/23	1.28%	1.82%		
09/30/24	1.28%	1.83%		
09/30/29	1.47%	2.10%		
09/30/49	2.11%	3.01%		

U.S. Agency Yields - Active Bonds					
Agency	Coupon	Maturity	Price	YTM	To Muni (bp)
FHLB	2.625%	10/01/20	\$100.78	1.83%	+2
FNMA	1.375%	10/07/21	\$99.70	1.53%	-29
FNMA	1.375%	09/06/22	\$99.36	1.60%	-21
FNMA	2.875%	09/12/23	\$104.89	1.59%	-23
FHLB	2.875%	09/13/24	\$105.81	1.65%	-18
FFCB	2.430%	09/28/29	\$102.21	2.15%	+5
FFCB	3.580%	04/11/47	\$116.14	2.72%	-29







Согрогате Бопа Ненаѕ						
Description	Price	YTM	To Treasury (bp)			
WFC (A2/A-) 2.1% 7/26/2021	\$99.98	2.11%	+45			
JPM (A2/A-) 3.32% 8/29/2024	\$100.69	3.10%	+148			
C (A3/BBB+) 3% 5/15/2026	\$100.22	2.96%	+135			
MS (A3/BBB+) 4.05% 3/13/2029	\$106.83	3.16%	+142			
6.00% 4.00% 2.00%	•					
2020 2022	2024 20	26	2028			

Description	Call Date	Price	YTM	YTW
FHLB 2.07% 9/16/2020	12/16/19	\$99.95	2.09%	2.09%
FHLB 2.05% 9/23/2021	03/23/20	\$100.02	2.04%	2.04%
FFCB 1.96% 9/16/2024	09/16/20	\$99.85	1.99%	1.99%
FHLB 2.5% 9/28/2029	12/28/19	\$97.77	2.71%	2.76%
4.00% -				•
2.00% -	+			
0.00% 2019 2021 20)23 2025	2027	2029	

Bullet & Callable Agency Bond Yields ³