

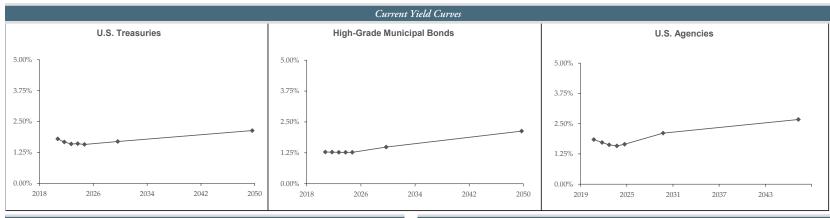
YIELD ANALYSIS

September 24, 2019

U.S. Treasury Yields				
Coupon	Maturity	YTM		
0.000%	09/10/20	1.80%		
1.500%	08/31/21	1.67%		
1.500%	09/15/22	1.59%		
2.750%	08/31/23	1.61%		
1.250%	08/31/24	1.57%		
1.625%	08/15/29	1.69%		
2.250%	08/15/49	2.14%		

Municipal Bond Yields ¹				
Maturity	YTM	Tax-Equiv. ²		
09/23/20	1.29%	1.84%		
09/23/21	1.28%	1.83%		
09/23/22	1.27%	1.82%		
09/23/23	1.27%	1.81%		
09/23/24	1.27%	1.82%		
09/23/29	1.48%	2.12%		
09/23/49	2.13%	3.04%		

	i	U.S. Agency Yields - A	Active Bonds		
Agency	Coupon	Maturity	Price	YTM	To Muni (bp)
FHLMC	1.890%	09/10/20	\$100.02	1.84%	+1
FNMA	1.375%	10/07/21	\$99.31	1.72%	-11
FNMA	1.375%	09/06/22	\$99.29	1.62%	-19
FNMA	2.875%	09/12/23	\$104.96	1.58%	-23
FHLB	2.875%	09/13/24	\$105.83	1.65%	-17
FFCB	2.430%	09/28/29	\$102.66	2.11%	-1
FFCB	3.580%	04/11/47	\$117.21	2.67%	-37



Description	Price	YTM	To Treasury (bp)
WFC (A2/A-) 2.1% 7/26/2021	\$99.86	2.18%	+50
JPM (A2/A-) 3.32% 8/29/2024	\$100.65	3.14%	+154
C (A3/BBB+) 3% 5/15/2026	\$102.63	2.57%	+99
MS (A3/BBB+) 4.05% 3/13/2029	\$107.19	3.12%	+142
4.00% - 2.00% -	•	•	
2020 2022	2024 20	026	2028

Corporate Bond Yields

builet & Callable Agency Bona Helas					
Description	Call Date	Price	YTM	YTW	
FHLB 2.07% 9/16/2020	12/16/19	\$99.93	2.11%	2.11%	
FHLMC 2.7% 9/27/2021	09/27/19	\$100.00	3.02%	3.02%	
FFCB 1.96% 9/16/2024	09/16/20	\$99.75	2.01%	2.01%	
FHLB 2.5% 9/28/2029	12/28/19	\$97.60	2.73%	2.78%	
6.00% 4.00% 2.00% 0.00% 2019 2021	2023 202	5 2027	2029		