

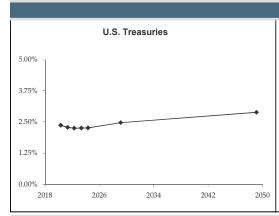
YIELD ANALYSIS

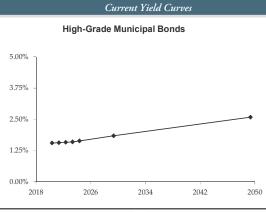
May 7, 2019

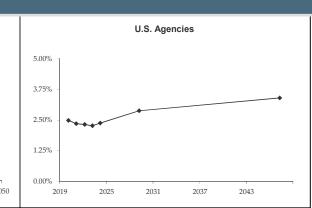
U.S. Treasury Yields			
Coupon	Maturity	YTM	
0.000%	04/23/20	2.37%	
2.250%	04/30/21	2.28%	
2.250%	04/15/22	2.25%	
2.750%	04/30/23	2.25%	
2.250%	04/30/24	2.26%	
2.625%	02/15/29	2.47%	
3.000%	02/15/49	2.88%	

Municipal Bond Yields ¹			
Maturity	YTM	Tax-Equiv. ²	
05/06/20	1.55%	2.21%	
05/06/21	1.56%	2.23%	
05/06/22	1.58%	2.25%	
05/06/23	1.60%	2.28%	
05/06/24	1.63%	2.33%	
05/06/29	1.84%	2.63%	
05/06/49	2.58%	3.69%	

U.S. Agency Yields - Active Bonds					
Agency	Coupon	Maturity	Price	YTM	To Muni (bp)
FNMA	1.500%	02/28/20	\$99.22	2.48%	+27
FNMA	1.375%	02/26/21	\$98.29	2.35%	+12
FHLB	2.250%	03/11/22	\$99.81	2.32%	+7
FHLB	2.750%	03/10/23	\$101.77	2.27%	-1
FHLB	3.250%	03/08/24	\$103.98	2.37%	+4
FFCB	3.000%	03/14/29	\$101.07	2.87%	+24
FFCB	3.580%	04/11/47	\$102.83	3.40%	-29







Description	Price	YTM	To Treasury (bp)
WFC (A2/A-) 2.5% 3/4/2021	\$100.00	2.50%	+22
JPM (A2/A-) 3.56% 4/23/2024	\$101.58	3.16%	+91
BAC (A2/A-) 3.5% 4/19/2026	\$101.08	3.32%	+106
MS (A3/BBB+) 4.05% 3/13/2029	\$101.34	3.84%	+137
6.00% 4.00% 2.00%	•		
2020 2022	2024 20	126	2028

Corporate Bond Yields

Description	Call Date	Price	YTM	YTW
FHLB 2.58% 3/20/2020	09/20/19	\$99.97	2.56%	2.56%
FHLB 2.65% 3/11/2021	06/11/19	\$99.98	2.64%	2.64%
FHLMC 3.05% 3/11/2024	06/11/19	\$100.07	3.02%	2.25%
FHLB 3.04% 2/28/2029	05/14/19	\$99.99	3.04%	3.04%
4.00% - 2.00% - 0.00%	•	, ,		•
2019 2021	2023	2025	2027	2029

Bullet & Callable Agency Bond Yields ³