

0.00%

2020

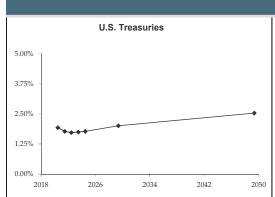
YIELD ANALYSIS

July 2, 2019

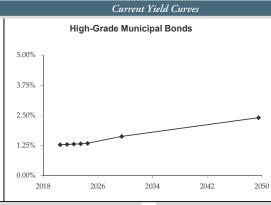
U.S. Treasury Yields				
Coupon	Maturity	YTM		
0.000%	06/18/20	1.93%		
1.625%	06/30/21	1.78%		
1.750%	06/15/22	1.73%		
2.625%	06/30/23	1.75%		
1.750%	06/30/24	1.77%		
2.375%	05/15/29	2.01%		
2.875%	05/15/49	2.53%		

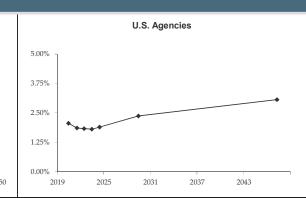
Municipal Bond Yields ¹				
Maturity	YTM	Tax-Equiv. ²		
07/01/20	1.28%	1.83%		
07/01/21	1.29%	1.84%		
07/01/22	1.30%	1.86%		
07/01/23	1.32%	1.88%		
07/01/24	1.34%	1.91%		
07/01/29	1.62%	2.32%		
07/01/49	2.40%	3.43%		

U.S. Agency Yields - Active Bonds					
Agency	Coupon	Maturity	Price	YTM	To Muni (bp)
FNMA	1.500%	06/22/20	\$99.46	2.06%	+23
FHLB	1.875%	07/07/21	\$100.03	1.86%	+2
FHLB	2.375%	06/10/22	\$101.54	1.84%	-3
FHLMC	2.750%	06/19/23	\$103.58	1.81%	-7
FHLB	2.875%	06/14/24	\$104.59	1.90%	-1
FHLB	2.750%	06/08/29	\$103.33	2.37%	+5
FFCB	3.580%	04/11/47	\$109.16	3.07%	-36



2022





Corporate Bond Yields					
Description	Price	YTM	To Treasury (bp)		
WFC (A2/A-) 2.5% 3/4/2021	\$100.12	2.43%	+65		
JPM (A2/A-) 3.56% 4/23/2024	\$103.72	2.63%	+88		
BAC (A2/A-) 3.5% 4/19/2026	\$104.66	2.74%	+97		
MS (A3/BBB+) 4.05% 3/13/2029	\$106.11	3.26%	+125		
6.00% - 4.00% - 2.00% -	•	-	•		

Description	Call Date	Price	YTM	YTW
FHLB 2.58% 3/20/2020	09/20/19	\$100.06	2.43%	2.43%
FHLB 1.5% 6/30/2021	07/10/19	\$98.40	2.24%	2.24%
FHLMC 2.82% 5/20/2024	11/20/19	\$100.15	2.78%	2.40%
FHLB 3.04% 2/28/2029	07/10/19	\$99.34	3.11%	3.12%
6.00% - 4.00% - 2.00% -	-	, , ,		
2019 2021	2023	2025	2027	2029

Bullet & Callable Agency Bond Yields 3

2024

2026

2028