

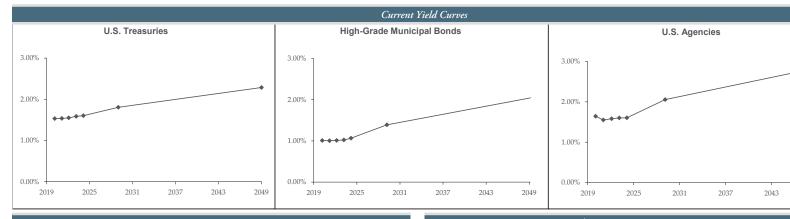
YIELD ANALYSIS

January 7, 2020

U.S. Treasury Yields				
Coupon	Maturity	YTM		
0.000%	12/31/20	1.53%		
1.625%	12/31/21	1.54%		
1.625%	12/15/22	1.55%		
2.625%	12/31/23	1.59%		
1.750%	12/31/24	1.60%		
1.750%	11/15/29	1.81%		
2.375%	11/15/49	2.29%		

Municipal Bond Yields ¹				
Maturity	YTM	Tax-Equiv. ²		
01/06/21	1.01%	1.44%		
01/06/22	1.01%	1.44%		
01/06/23	1.01%	1.45%		
01/06/24	1.02%	1.46%		
01/06/25	1.07%	1.52%		
01/06/30	1.39%	1.99%		
01/06/50	2.05%	2.92%		

U.S. Agency Yields - Active Bonds					
Agency	Coupon	Maturity	Price	YTM	To Muni (bp)
FHLMC	1.875%	11/17/20	\$100.18	1.64%	+20
FHLB	1.875%	11/29/21	\$100.58	1.55%	+11
FHLB	2.500%	12/09/22	\$102.56	1.58%	+14
FHLB	2.250%	12/08/23	\$102.40	1.60%	+14
FFCB	1.625%	12/03/24	\$99.81	1.60%	+8
FHLB	2.125%	12/14/29	\$100.44	2.06%	+7
FFCB	2.625%	10/15/49	\$95.13	2.84%	-8



Corporate Bond Yields					
Description	P	rice	YTM	To Treasury (bp)	
WFC (A2/A-) 2.1% 7/26/2021	\$10	00.30	1.88%	+35	
JPM (A2/A-) 3.11% 8/29/2024	\$10	01.70	2.64%	+105	
C (A3/BBB+) 3% 5/15/2026	\$10	01.67	2.66%	+106	
MS (A3/BBB+) 4.05% 3/13/2029	\$10	08.70	2.91%	+111	
4.00% 3.00% - 2.00% - 1.00% - 0.00%	•	•		→	
2020 2022	2024	2026	2028	2030	

Bullet & Callable Agency Bond Yields ³					
Description	Call Date	Price	YTM	YTW	
FNMA 1.35% 12/18/2020	01/18/20	\$99.30	1.95%	1.95%	
FFCB 1.59% 12/10/2021	12/10/20	\$99.90	1.62%	1.62%	
FHLB 2% 12/11/2024	09/11/20	\$100.09	1.97%	1.87%	
FFCB 2.65% 11/13/2029	02/13/20	\$100.08	2.64%	1.82%	
4.00% 3.00% 2.00% 1.00% 0.00% 2020 2022	2024 2	2026	2028	2030	