

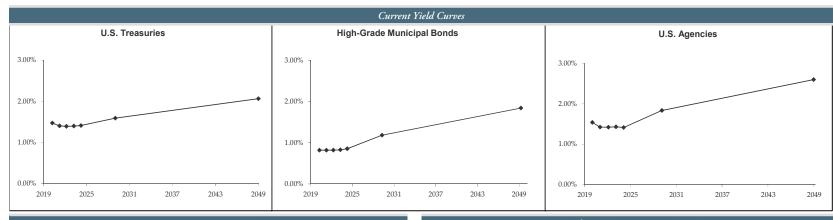
YIELD ANALYSIS

February 4, 2020

	U.S. Treasury Y	ields
Coupon	Maturity	YTM
0.000%	01/28/21	1.47%
1.375%	01/31/22	1.40%
1.500%	01/15/23	1.39%
2.500%	01/31/24	1.40%
1.375%	01/31/25	1.41%
1.750%	11/15/29	1.59%
2.375%	11/15/49	2.06%

Municipal Bond Yields ¹			
Maturity	YTM	Tax-Equiv. 2	
02/03/21	0.82%	1.17%	
02/03/22	0.82%	1.17%	
02/03/23	0.82%	1.17%	
02/03/24	0.83%	1.18%	
02/03/25	0.85%	1.22%	
02/03/30	1.18%	1.69%	
02/03/50	1.84%	2.63%	

U.S. Agency Yields - Active Bonds					
Agency	Coupon	Maturity	Price	YTM	To Muni (bp)
FHLMC	1.875%	11/17/20	\$100.24	1.54%	+36
FHLB	1.875%	11/29/21	\$100.78	1.42%	+25
FHLB	2.500%	12/09/22	\$102.96	1.42%	+24
FHLB	2.250%	12/08/23	\$103.01	1.43%	+24
FFCB	1.625%	12/03/24	\$100.70	1.41%	+19
FHLB	2.125%	12/14/29	\$102.45	1.83%	+14
FFCB	2.625%	10/15/49	\$99.67	2.60%	-3



Corporate Bond Yields					
Description	Price	YTM	To Treasury (bp)		
JPM (A2/A-) 3.05% 10/14/2021	\$102.44	1.81%	+41		
WFC (A2/A-) 3% 2/19/2025	\$104.59	2.02%	+62		
MS (A3/BBB+) 3.63% 1/20/2027	\$108.20	2.32%	+91		
GS (A3/BBB+) 3.3% 3/15/2030	\$103.60	2.84%	+125		
4.00% 3.00% - 2.00% - 1.00% - 0.00%	•	•			
2020 2022	2024 2026	2028	2030		

Bullet & Callable Agency Bond Yields					
Description	Call Date	Price	YTM	YTW	
FFCB 1.58% 2/17/2021	02/11/20	\$99.72	1.82%	1.82%	
FFCB 1.53% 2/10/2022	02/10/21	\$100.02	1.41%	1.41%	
FHLMC 1.97% 2/6/2025	05/06/20	\$99.87	1.95%	2.00%	
FHLB 2.64% 2/22/2030	02/11/20	\$99.85	2.64%	2.66%	
4.00% 3.00% 2.00% 1.00%				-	
2020 2022	2024	2026 2	1028	2030	