

YIELD ANALYSIS

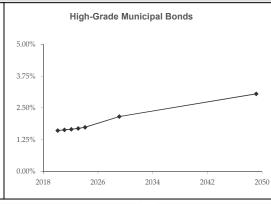
February 12, 2019

U.S. Treasury Yields					
Coupon	Maturity	YTM			
0.000%	01/30/20	2.54%			
2.500%	01/31/21	2.50%			
2.500%	02/15/22	2.48%			
2.375%	01/31/23	2.49%			
2.500%	01/31/24	2.48%			
2.625%	02/15/29	2.68%			
3.000%	02/15/49	3.01%			
U.S. Treasuries					

Municipal Bond Yields ¹				
Maturity	YTM	Tax-Equiv. ²		
02/11/20	1.61%	2.30%		
02/11/21	1.64%	2.34%		
02/11/22	1.66%	2.37%		
02/11/23	1.69%	2.42%		
02/11/24	1.74%	2.48%		
02/11/29	2.16%	3.09%		
02/11/49	3.06%	4.36%		

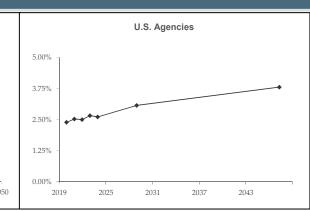
U.S. Agency Yields - Active Bonds					
Agency	Coupon	Maturity	Price	YTM	To Muni (bp)
FHLB	2.453%	12/17/19	\$100.03	2.39%	+9
FNMA	1.875%	12/28/20	\$98.81	2.53%	+19
FHLB	2.625%	12/10/21	\$100.33	2.50%	+13
FFCB	2.350%	12/22/22	\$98.61	2.66%	+24
FFCB	3.500%	12/20/23	\$103.93	2.61%	+13
FHLB	3.500%	12/08/28	\$103.60	3.07%	-1
FFCB	3.580%	04/11/47	\$95.77	3.81%	-56

U.S. Treasuries 5.00% 2.50% 1.25% 0.00% 2018 2026 2034 2042 2050



Description

Current Yield Curves



Price

YTM

YTW

Description	Price YTM		To Treasury (bp)	
JPM (A2/A-) 4.25% 10/15/2020	\$101.97	3.03%	+53	
C (Baa1 *+/BBB+) 3.88% 10/25/2023	\$102.49	3.30%	+81	
BAC (A3 *+/A-) 3.88% 8/1/2025	\$101.84	3.55%	+107	
MS (A3/BBB+) 3.68% 5/11/2028	\$100.56	3.19%	+52	
6.00% 4.00% - 2.00% - 0.00%	•		•	
2020 2022	2024	2026	2028	

Corporate Bond Yields

FFCB 1.16% 11/1/2	019	N/A	\$98.75	2.75%	2.75%
FHLB 2.84% 9/25/2	020	09/25/19	\$99.92	2.86%	2.86%
FHLMC 3.375% 8/3	16/2023	02/16/19	\$100.01	2.14%	2.14%
FFCB 3.7% 10/4/20	28	10/04/23	\$101.33	3.53%	3.39%
4.00% - 2.00% -	•				→
2019	2021	2023	2025	2027	2029

Bullet & Callable Agency Bond Yields ³

Call Date