

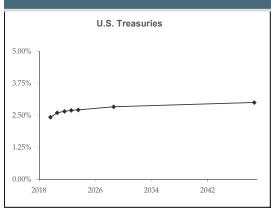
YIELD ANALYSIS

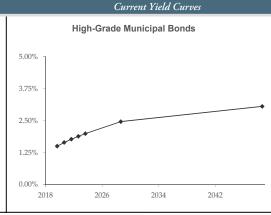
August 21, 2018

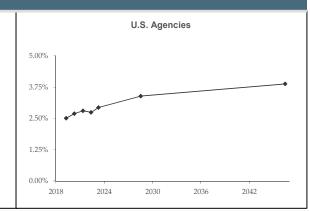
U.S. Treasury Yields					
Coupon	Maturity	YTM			
0.000%	08/15/19	2.43%			
2.625%	07/31/20	2.60%			
2.750%	08/15/21	2.65%			
1.875%	07/31/22	2.69%			
2.750%	07/31/23	2.71%			
2.875%	08/15/28	2.83%			
3.000%	08/15/48	3.00%			

Municipal Bond Yields ¹					
Maturity	YTM	Tax-Equiv. ²			
08/20/19	1.50%	2.15%			
08/20/20	1.65%	2.35%			
08/20/21	1.78%	2.54%			
08/20/22	1.89%	2.69%			
08/20/23	1.99%	2.85%			
08/20/28	2.46%	3.52%			
08/20/48	3.06%	4.37%			

U.S. Agency Yields - Active Bonds					
Agency	Coupon	Maturity	Price	YTM	To Muni (bp)
FHLB	2.250%	04/26/19	\$99.81	2.51%	+36
FHLB	2.375%	04/16/20	\$99.48	2.69%	+34
FFCB	2.700%	05/10/21	\$99.71	2.80%	+26
FFCB	2.875%	05/25/22	\$99.88	2.74%	+5
FFCB	2.700%	04/11/23	\$98.94	2.93%	+9
FFCB	3.200%	07/12/28	\$98.33	3.39%	-13
FFCB	3.250%	06/28/46	\$89.23	3.88%	-49







Description	Price	YTM	To Treasury (bp)
C (Baa1/BBB+) 2.4% 2/18/2020	\$99.19	2.96%	+37
JPM (Baa1 *+/BBB+) 3.38% 5/1/2023	\$98.53	3.72%	+103
MS (A3/BBB+) 4% 7/23/2025	\$100.75	3.88%	+117
BAC (A3/A-) 3.71% 4/24/2028	\$97.13	4.08%	+125
6.00% - 4.00% - 2.00% -	•	1 .	
2020 2022	2024	2026	2028

Corporate Bond Yields

Description	Call Date	Price	YTM	YTW
FHLB 2.25% 4/26/2019	N/A	\$99.81	2.51%	2.51%
FFCB 2.5% 4/23/2020	04/23/19	\$99.53	2.76%	2.76%
FHLB 3% 4/17/2023	04/17/19	\$99.37	3.14%	3.15%
FHLB 3.75% 4/24/2028	04/24/19	\$99.97	3.75%	3.75%
4.00% - 2.00% -	. , ,	,	. ,	
2019 2021	2023	2025	2027	

Bullet & Callable Agency Bond Yields ³