

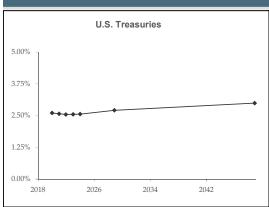
YIELD ANALYSIS

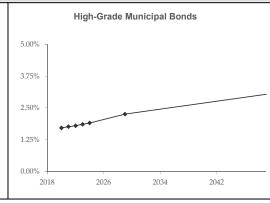
January 8, 2019

Coupon	Maturity	YTM	Matur
0.000%	01/02/20	2.60%	01/07/
2.500%	12/31/20	2.57%	01/07/
2.625%	12/15/21	2.54%	01/07/
2.125%	12/31/22	2.54%	01/07/
2.625%	12/31/23	2.55%	01/07/
3.125%	11/15/28	2.70%	01/07/
3.375%	11/15/48	2.99%	01/07/
	U.S.	Treasuries	
5.00%			

Municipal Bond Yields ¹					
Maturity	YTM	Tax-Equiv. ²			
01/07/20	1.72%	2.45%			
01/07/21	1.76%	2.52%			
01/07/22	1.80%	2.57%			
01/07/23	1.85%	2.65%			
01/07/24	1.91%	2.72%			
01/07/29	2.26%	3.22%			
01/07/49	3.04%	4.34%			

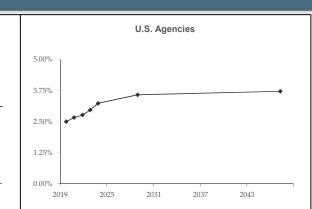
U.S. Agency Yields - Active Bonds					
Agency	Coupon	Maturity	Price	YTM	To Muni (bp)
FNMA	1.000%	10/24/19	\$98.83	2.50%	+5
FHLB	2.860%	10/15/20	\$100.31	2.67%	+15
FFCB	1.520%	11/15/21	\$96.43	2.77%	+20
FFCB	1.750%	11/01/22	\$95.45	2.97%	+32
FFCB	2.450%	11/29/23	\$96.31	3.24%	+51
FFCB	3.250%	12/19/28	\$97.28	3.58%	+35
FFCB	3.580%	04/11/47	\$97.23	3.72%	-62





Current Yield Curves

Description



Price

YTM

YTW

Corporate Bond Yields					
Description	Price	YTM	To Treasury (bp)		
JPM (A2/A-) 4.25% 10/15/2020	\$101.72	3.23%	+67		
C (Baa1 *+/BBB+) 3.88% 10/25/2023	\$99.57	3.97%	+143		
BAC (A3 *+/A-) 3.88% 8/1/2025	\$98.88	4.07%	+152		
MS (A3/BBB+) 3.78% 5/11/2028	\$99.81	3.60%	+89		
6.00%		-			

6.00% - 4.00% -			•		→
2.00% -	2000	2002		2025	
	2020	2022	2024	2026	2028

FFCB 1.16% 11/1/	2019	N/A	\$98.75	2.73%	2.73%
FHLB 2.84% 9/25/2020		09/25/19	\$99.83	2.91%	2.91%
FHLMC 3.375% 8/16/2023		02/16/19	\$100.06	3.36%	2.75%
FFCB 3.7% 10/4/2	028	10/04/23	\$99.97	3.70%	3.70%
6.00%					
4.00% -					
-	+	•			•
2.00% -					
0.00%					
2019	2021	2023	2025	2027	2029

Bullet & Callable Agency Bond Yields ³

Call Date