

## YIELD ANALYSIS

November 20, 2018

| U.S. Treasury Yields Mun           |                 |                                |                   |                            | nicipal Bond Yields <sup>1</sup> |                      | U.S. Agency Yields - Active Bonds |               |              |               |        |                |  |
|------------------------------------|-----------------|--------------------------------|-------------------|----------------------------|----------------------------------|----------------------|-----------------------------------|---------------|--------------|---------------|--------|----------------|--|
| Coupon                             | Maturity        | YTM                            | Maturity          | YTM                        | Tax-Equiv. <sup>2</sup>          | Agency               | Coupon                            |               | aturity      | Price         | YTM    | To Muni (b     |  |
| 0.000%                             | 11/07/19        | 2.65%                          | 11/19/19          | 1.96%                      | 2.80%                            | FNMA                 | 1.000%                            |               | /24/19       | \$98.43       | 2.73%  | -7             |  |
| 2.875%                             | 10/31/20        | 2.79%                          | 11/19/20          | 2.07%                      | 2.96%                            | FHLB                 | 2.860%                            |               | /15/20       | \$99.96       | 2.88%  | -8             |  |
| 2.875%                             | 11/15/21        | 2.83%                          | 11/19/21          | 2.14%                      | 3.05%                            | FFCB                 | 2.850%                            |               | /20/21       | \$99.88       | 2.90%  | -16            |  |
| 2.000%                             | 10/31/22        | 2.85%                          | 11/19/22          | 2.21%                      | 3.16%                            | FHLB                 | 2.280%                            |               | /26/22       | \$97.17       | 3.04%  | -12            |  |
| 2.875%                             | 10/31/23        | 2.86%                          | 11/19/23          | 2.27%                      | 3.24%                            | FHLMC                | 2.000%                            |               | /17/23       | \$94.78       | 3.14%  | -10            |  |
| 3.125%                             | 11/15/28        | 3.04%                          | 11/19/28          | 2.68%                      | 3.83%                            | FFCB                 | 4.000%                            |               | /23/28       | \$104.70      | 3.41%  | -43            |  |
| 3.375%                             | 11/15/48        | 3.29%                          | 11/19/48          | 3.38%                      | 4.83%                            | FFCB                 | 3.580%                            |               | /11/47       | \$94.71       | 3.87%  | -96            |  |
|                                    |                 |                                |                   |                            | Current                          | t Yield Curves       |                                   |               |              |               |        |                |  |
| U.S. Treasuries                    |                 |                                |                   | High-Grade Municipal Bonds |                                  |                      |                                   | U.S. Agencies |              |               |        |                |  |
| 5.00% -                            |                 |                                |                   | 5.00%                      |                                  |                      |                                   | 5.00%         |              |               |        |                |  |
| 3.75% -                            |                 |                                |                   | 3.75% -                    |                                  |                      |                                   | 3.75% -       |              |               |        |                |  |
| 2.50% -                            |                 |                                |                   | 2.50% -                    | 2.50%                            |                      |                                   | 2.50%         |              |               |        |                |  |
| 2.0070                             |                 |                                |                   | 2.5070                     | ****                             |                      |                                   | 2.50% -       |              |               |        |                |  |
| 1.25% -                            |                 |                                |                   | 1.25% -                    |                                  |                      |                                   | 1.25% -       |              |               |        |                |  |
| 0.00%                              | 1               | -                              | 1                 | 0.00%                      | 1                                | 1 1                  |                                   | 0.00%         | -            | 1             |        |                |  |
| 2018                               | 2026            | 2034                           | 2042              | 2018                       | 2026                             | 2034 2042            | !                                 | 2019          | 2025         | 2031          | 2037 2 | 043            |  |
|                                    |                 | Corp                           | orate Bond Yields |                            |                                  |                      |                                   | Bullet & Ca   | llable Ageno | y Bond Yields | 3      |                |  |
| Description                        |                 | Price                          | YTM               | To Treasury (bp)           |                                  | Description          |                                   | ll Date       | Price        | YTM           | YTW    |                |  |
| JPM (A2/A-) 4.25% 10/15/2020       |                 | \$101.66<br>\$99.48            | 3.34%             | +55                        |                                  | FFCB 1.16% 11/1/2019 |                                   | N/A           | \$98.29      | 2.87%         | 2.87%  |                |  |
|                                    | RRR+) 3 88% 10  | C (Baa1/BBB+) 3.88% 10/25/2023 |                   | 3.99%                      | +114                             |                      | FHLB 2.84% 9/25/2020              |               | /25/19       | \$99.97       | 2.83%  | 2.83%          |  |
| C (Baa1/I                          | ,               |                                | \$98.35           | 4.16%                      | +130                             |                      | FFCB 3.34% 10/4/2023              |               | /04/19       | \$99.90       | 3.36%  | 3.36%<br>3.80% |  |
| C (Baa1/I<br>BAC (A3               | /A-) 3.88% 8/1/ |                                |                   | 2.010/                     | .77                              |                      |                                   |               |              |               |        |                |  |
| C (Baa1/I<br>BAC (A3<br>MS (A3/I   | ,               |                                | \$101.11          | 3.81%                      | +76                              | FFCB 3.7% 1          | 0/4/2028                          | 10            | /04/23       | \$99.17       | 3.80%  | 3.00 /6        |  |
| C (Baa1/I<br>BAC (A3               | /A-) 3.88% 8/1/ |                                |                   | 3.81%                      | +76                              | 6.00%                | 0/4/2028                          | 10            | /04/23       | \$99.17       | 3.80%  | 3.00 /6        |  |
| C (Baa1/I<br>BAC (A3<br>MS (A3/E   | /A-) 3.88% 8/1/ |                                |                   | 3.81%                      | +76                              | 6.00% -              | 0/4/2028                          | 10            | /04/23       | \$99.17       | 3.80%  | 3.80 /6        |  |
| C (Baa1/F<br>BAC (A3/F<br>MS (A3/F | /A-) 3.88% 8/1/ |                                |                   | 3.81%                      | +76                              | 6.00%                | 0/4/2028                          | 10            | /04/23<br>   | \$99.17       | 3.80%  | 3.80 /o        |  |

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