Problem Set to prepare for Quiz 2

Today is November 15, 2017, and you see the following STRIPS prices: (In answering this you may assume that there is exactly $1 / 4$ of a year in all calendar quarters.)

| Maturity | Price <br> (\% of par) |
| :--- | :--- |
| Feb 15, 2018 | 99.6815 |
| May 15, 2018 | 99.3295 |
| Aug 15, 2018 | 98.9223 |
| Nov 15, 2018 | 98.5167 |
| Feb 15, 2019 | 98.0885 |
| May 15, 2019 | 97.6379 |
| Aug 15, 2019 | 97.2497 |
| Nov 15, 2019 | 96.7670 |
| Feb 15, 2020 | 96.2628 |
| May 15, 2020 | 95.7375 |
| Aug 15, 2020 | 95.3214 |
| Nov 15, 2020 | 94.7661 |
| Feb 15, 2021 | 94.2818 |
| May 15, 2021 | 93.7581 |
| Aug 15, 2021 | 93.3274 |
| Nov 15, 2021 | 92.8252 |
| Feb 15, 2022 | 92.3553 |
| May 15, 2022 | 91.8424 |
| Aug 15, 2022 | 91.4092 |
| Nov 15, 2022 | 90.8430 |
| Feb 15, 2023 | 90.3139 |
| May 15, 2023 | 89.8768 |
| Aug 15, 2023 | 89.1875 |
| Nov 15, 2023 | 88.7449 |
| Feb 15, 2024 | 88.3045 |
| May 15, 2024 | 87.8663 |
| Aug 15, 2024 | 87.2551 |
| Nov 15, 2024 | 86.6954 |
| Feb 15, 2025 | 86.0999 |
| May 15, 2025 | 85.6249 |
| Aug 15, 2025 | 85.1178 |
| Nov 15, 2025 | 84.6095 |
| Feb 15, 2026 | 84.1000 |
| May 15, 2026 | 83.5896 |
| Aug 15, 2026 | 82.8626 |
| Nov 15, 2026 | 82.2721 |
| Feb 15, 2027 | 81.7525 |
| May 15, 2027 | 81.2322 |
| Aug 15, 2027 | 80.7890 |
| Nov 15, 2027 | 80.1896 |
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1. Plot the yield curve.
2. According to this information, what is the value of the following Treasury note: $6 \%$ of Nov 15, 2026?
3. According to this information, what is the value of the following Treasury note: $3.25 \%$ of May 15, 2018?
4. According to this information, what is the value of the following Treasury note: $4.5 \%$ of Nov 15, 2019?
5. According to this information, what is the value of the following Treasury note: $1.5 \%$ of Aug 15, 2027?
6. With reference to the four notes in the preceding questions, which of these notes are selling at a premium and which are selling at a discount? Explain why this is so.
7. Use Solver to compute the yield-to-maturity of the four notes. Use the yield-to-maturity to inform your discussion about why the notes are selling at a premium or discount.
