

40. A US Treasury bond pays a 9% coupon on Jan 7 and Jul 7. How much interest accrues per \$100 of principal to the bondholder between Jul 7, 2023 and Aug 9, 2023? How would your answer be different if it were a corporate bond?
41. It is Jan 9, 2023. The price of a Treasury bond with a 14% coupon that matures on Oct 12, 2025, is quoted as 102-07. What is the cash price?
42. Suppose that the Treasury bond futures price is 101-12. Which of the following four bonds is cheapest to deliver?

Bond	1	2	3	4
Price	125-05	142-15	115-31	144-02
Conversion Factor	1.2131	1.3792	1.1149	1.4026

43. The futures price for the Jun 2023 CBOT bond futures contract is 118-23.
- Find the conversion factor for a 10%-coupon bond maturing on Jan 1, 2039.
  - Find the conversion factor for a 7%-coupon bond maturing on Oct 1, 2044.
  - Suppose that the quoted prices of the bonds in (a) and (b) are 169.00 and 136.00, respectively. Which bond is cheaper to deliver?
  - Assuming that the cheapest-to-deliver bond is actually delivered on June 25, what is the cash price received for the bond?
44. It is Jul 30, 2023. The cheapest-to-deliver bond in a Sep 2023 Treasury bond futures contract is a 13% coupon bond, and delivery is expected to be made on Sep 30, 2023. Coupon payments on the bond are made on Feb 4 and Aug 4 each year. The term structure is flat, and the rate of interest with semiannual compounding is 12% pa. The conversion factor of the bond is 1.5. The current bond price is \$110. Calculate the quoted futures price for the contract.