

43. A Eurodollar futures price changes from 96.76 to 96.82. What is the gain or loss to an investor who is long two contracts?
44. The 350-day LIBOR is 3% (cc) and the forward rate calculated from a Eurodollar futures contract maturing in 350 days is 3.2% (cc). Estimate the 440-day zero rate.
45. On Aug 1, a portfolio manager has a bond portfolio worth \$10 million. The duration of the portfolio in Oct will be 7.1 years. The Dec Treasury bond futures price is currently 91-12 and the cheapest-to-deliver bond will have a duration of 8.8 years at maturity. How should the portfolio manager immunize the portfolio against changes in interest rates over the next 2 months?
46. On a \$20 million 5-year loan, company A has been offered 12% or LIBOR+0.1%, and company B has been offered 13.4% or LIBOR+0.6%. Design a swap that gives A a floating-rate loan, B a fixed-rate loan, net a bank (acting as intermediary) 0.1% pa, and appears equally attractive to both companies.
47. A \$100 million interest rate swap has a remaining life of 10 months, where LIBOR is exchanged for 12% (s-a). The current rate is 10% (cc), and 6-month LIBOR was 9.6% (s-a) two months ago. What is the current value of the swap to the party paying floating? Find this value twice (in terms of bonds and FRAs).
48. Company X wishes to borrow USD at a fixed rate of interest, while company Y wishes to borrow Japanese yen at a fixed rate of interest. At the current exchange rates, both amounts required are the same. X can borrow yen for 5% and USD for 9.6% while Y can borrow yen for 6.5% and USD for 10%. Design a swap that will net a bank (acting as an intermediary) 50 basis points pa. Make the swap equally attractive to the two companies and ensure that all foreign exchange risk is assumed by the bank.
49. A currency swap has a remaining life of 15 months. It involves exchanging interest at 14% of 20 million GBP for interest at 10% on 30 million USD once a year. The interest rates (flat) are 8% in USD and 11% in GBP (ac). The current exchange rate is 1.65 USD per GBP. What is the value of the swap to the party paying GBP? Find this value twice (in terms of bonds and forwards).