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**Subject: Financial Risk Management**

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* **Problem: 1**

**In this case Mr. Ali will going to use the “SHORT HEDGE”. In order to hedge this risk MR.ALI will going to sell the treasury bonds for future contracts . the treasury bonds will be of 4 months. As the rise in interest rates the prices of mortgages along with this Treasury Bond will also going to fall. MR.ALI will have his loss on mortgages is offset by the price by profit on short hedge of the treasury bonds.**

* **Problem: 2**

**As we have the formula for calculating value of discount bond**

**Value of discount bond =** $^{payment at maturity}/\_{(1+market interest rate)}$**n**

**And the data that is given are as follow..**

**1 year discount bond pays at 1080 maturity and 5 years discount bond pays at 1469.32 maturity**

**The interest rates are 6% and 10%**

**SOLUTION:**

**Interest rates one year five year**

 **pure discount bond pure discount bond**

**6%** $\frac{1080}{1.06} $**=1018.86** $ \frac{1469.32}{1.06^{5}}$ **=1098.14**

**10%** $\frac{1080}{1.10}$ **=981.81** $\frac{1469.32}{(1.10)^{5}}$ **= 912.33**

**8%** $\frac{1080}{1.08}$ **=1000** $\frac{1469.32}{(1,08)^{5}}$ **= 1000.21**