Excercise

You are planning to invest buying one of these two bonds

BTP fixed rate at 10% paid semiannually maturity 1 of August 2019

Zero coupon bond maturity 1 of August 2019

The current interest rate is equal to 7% per annum

Price the two bonds clean and dirty price

You expect the interest rates to increase from 7% to 8% shortly

Which one you should buy? To motivate your decision calculate the duration of the two bonds.

If you are right using the relationship of change in price to change in interest rate as a function of duration, how much the price of the two bonds will move in percentage terms and which is their expected price after the rate increase?