**VALUATION AND PORTFOLIO MANAGEMENT**

**FIXED INCOME SECURITIES (CLASS ASSIGNMENT)**

1. You expect interest rates to decline over the next six months.
2. Given your interest rate outlook, state what kinds of bonds you want in your portfolio In terms of duration and explain your reasoning for this choice.
3. You must make a choice between the following three sets of noncallable bonds. In each case, select the bond that would be best for your portfolio given your interest rate outlook and the consequent strategy set forth in Part(a). In each case briefly discuss why you selected the bond.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Maturity | Coupon | Yield to maturity |
| Case1 | Bond A | 15 years | 10% | 10 % |
|  | Bond B | 15 years | 6% | 8 % |
| Case 2 | Bond C | 15 years | 6% | 10 % |
|  | Bond D | 10 years | 8% | 10% |
| Case 3 | Bond E | 12 years | 12% | 12 % |
|  | Bond F | 15 years | 12% | 8 % |

2. As the portfolio manager for a large pension fund, you are offered the following bonds:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Coupon | Maturity | Price | Call price | YTM |
| ABC Corp | 14% | 2018 | 101.75 | 114 | 13.85% |
| ABC Corp | 6% | 2018 | 48.125 | 103 | 13.60 |

Assuming that you expect a decline in interest rates over the next 3 years, identify and justify which of these bonds you would select.

1. At the present time, you expect a decline in interest rates and must choose between two portfolios of bonds with the following characteristics:

|  |  |  |
| --- | --- | --- |
|  | Portfolio A | Portfolio B |
| Average maturity | 10.5 years | 10 years |
| Average YTM | 7% | 10% |
| Modified Duration | 5.7 years | 4.9 years |
| Call features | Non callable | Deferred call features that range from 1 to 3 yrs |

Select one of the portfolios and discuss factors that would justify your selection.

1. XYZ corporation has issued bonds that pay semi-annually with the following characteristics:

|  |  |  |  |
| --- | --- | --- | --- |
| Coupon | YTM | Maturity | Macaulay Duration |
| 8% | 8% | 15 years | 10 years |

1. Calculate modified duration using the information above.
2. Explain why modified duration is a better measure than maturity when calculating the bond’s sensitivity to changes in interest rates.
3. Identify the direction of change in modified duration if:

(i) the coupon of the bond were 4%, not 8%

(ii) the maturity of the bond were 7 years, not 15 years.

1. A 20 year maturity bond with a 10% coupon (paid annually) currently sells at a YTM of 9%. A portfolio manager with a 2 year horizon needs to forecast the total return on the bond over the coming 2 years. In 2 years from now the analyst forecasts that 18 year bonds will sell at a YTM of 8%, and that the coupon payments can be reinvested in short term securities over the coming 2 years at the rate of 7%. Calculate the annualised rate of return over the two year period.