Discount Rates Sep 30, 2022

Used for actuarial valuation of employee benefits

Introduction

Discount rate is a key assumption used in actuarial valuation of various employee benefits like gratuity, earned leaves, long term awards etc. It is used to calculate the discounted values of the future cashflows.

The term of the bond which is to be taken, to determine bond yield, should match the duration of liabilities.

AS 15 R

As per para 78 of AS 15 (R), "the rate used to discount post-employment benefit obligations (both funded and unfunded) should be determined by reference to market yields at the balance sheet date on government bonds. The currency and term of the government bonds should be consistent with the currency and estimated term of the post-employment benefit obligations."

IND AS 19

As per para 83 of IND AS 19, "the rate used to discount post-employment benefit obligations (both funded and unfunded) shall be determined by reference to market yields at the end of the reporting period on high quality corporate bonds. In countries where there is no deep market in such bonds, the market yields (at the end of the reporting period) on government bonds shall be used. The currency and term of the corporate bonds or government bonds shall be consistent with the currency and estimated term of the post-employment benefit obligations."

Duration of Liabilities

The Duration of liability is calculated by scientific method called Macaulay Duration. The Macaulay Duration is the weighted average term to maturity of the cashflows from a bond. The weight of each cashflow is determined by dividing the present value of the cashflow by the price.
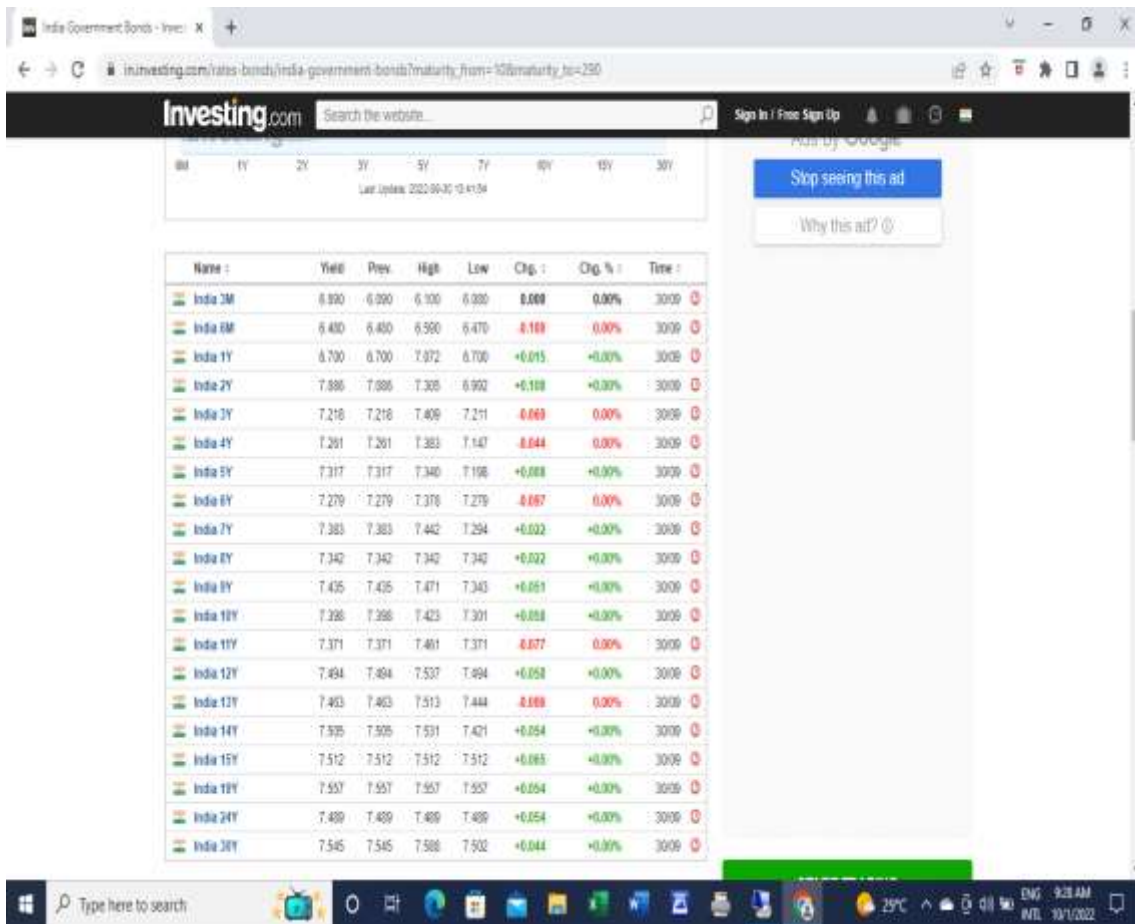
Example: If duration of liability is n years then the yield on nth year Government bond is considered as discount rate.

Yields on Indian Government Bonds

Term	September 30, 2021*	September 30, 2022*
1 – Year	4.07%	6.81%
2 – Year	4.75%	7.21%
3 – Year	4.99%	7.35%
4 – Year	5.41%	7.39%
5 – Year	5.74%	7.45%
6 – Year	6.15%	7.41%
7 – Year	6.28%	7.52%
8 – Year	6.37%	7.48%
9 – Year	6.42%	7.57%
10 – Year	6.32%	7.53%
11 – Year	6.71%	7.51%
12 – Year	6.73%	7.63%
13 – Year	6.81%	7.60%
14 – Year	6.85%	7.65%
15 – Year	6.86%	7.65%
19 – Year	6.94%	7.70%
24 – Year	7.00%	7.63%
30 – Year	7.09%	7.69%

*These are the annualized yields.

Source of Data

*Please note that the yields above are on semi – annual basis. We annualize them before using them for the valuation.