NPTEL

Course Name: Security Analysis and Portfolio Management

Department: VGSOM, IIT Kharagpur

Instructors: Dr. Chandra Sekhar Mishra & Dr. Jitendra Mahakud

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Session 31: Introduction to Bond Analysis

1. What are the different types of Bond Market?

Ans.

Types of Bond Market: Bond market is divided by maturity

- Money Market - short-term issues that mature within one year
- Notes - intermediate-term issues that mature between one and ten years
- Bonds - long-term obligations with maturity greater than ten years

Types of Bonds in India

I. Money Market Instruments

i. Treasury Bills
   - Represent short-term obligations of the Government
   - Maturity Period: 91 Days, 182 Days and 365 days
   - They don't carry any explicit coupon rate
   - They are sold at a discount and redeemed at par value
   - There is a very active secondary market for this

ii. Certificate of Deposits
   - Represents a negotiable receipt of funds deposited in a bank for a fixed period
   - They are sold at a discount and redeemed at par value
   - There is a very active secondary market for this

iii. Commercial Paper
   - Represents the short-term unsecured promissory notes issued by firms
   - They are sold at a discount and redeemed at par value
   - There is not active secondary market for this

II. Government Securities and Govt. Guaranteed Bonds

- Issued by RBI on behalf of GOI and State Governments
- Interest payments are semi annually
- They are essentially medium to long-term bonds

III. Corporate Bonds

- Straight Bond (Plain Vanilla Bond)
- Zero Coupon Bond
- Floating Rate Bond
- Bonds with Embedded Options
- Commodity-Linked Bonds

2. How to calculate Rates of Return on a Bond Portfolio.

Ans.

Holding Period Return (HPR) = Holding Period Yield (HPY) + 1

$$HPR_{i,t} = \frac{P_{i,t+1} + Int_{i,t}}{P_{i,t}}$$

Where,

$HPR_{i,t}$ = the holding period for bond i during the period t
$P_{i,t+1}$ = the market price of bond i at the end of period t
$P_{i,t}$ = the market price of bond i at the beginning of period t
$Int_{i,t}$ = the interest payments on bond i during period t

3. Write short note on Floating Rate Notes.

Ans.

Floating Rate Notes (FRN) is a bond issued for medium to long-term which pays coupons that are pegged to a level of certain floating index which is called reference index. FRN A note with a variable interest rate.

Features of Floating rate Notes:

- Reference Index
- Quoted margin to Reference Rate (default risk premium)
- Reset Frequency (Period of Coupon Payment)
- Observation Date (for Index)
- Maturity Date

4. Explain the intrinsic features of a Bond.

Ans.

Intrinsic Features:

- Coupon: Indicates the income that the bond investor will receive over the life of the issue.
- Term to Maturity: The date or the number of years before a bond matures.
    - Term Bond: Single Maturity Date
    - Serial Obligation Bond: Series of Maturity Dates
- Principal or Par value: It is the original value of obligation
- Types of Ownership
    - Bearer Bond
    - Registered Bond
- Types of Issues
    - Secured (Senior) Bond: Backed by a legal claim on some specified property of the issuer in the case of default.
    - Unsecured Bond (Debentures): Backed by the promise of the issuer to pay interest and principal on a timely basis.
- Features Affecting a Bond's Maturity
    - Callable
    - Non callable
    - Deferred call