



Session 2 - Fixed Income Investing



Fixed Income Instruments and Return Computation



Fixed Coupon Bond

A fixed-rate bond is a bond that pays the same amount of interest for its entire term. The benefit of owning a fixed-rate bond is that investors know with certainty how much interest they will earn and for how long.

As long as the bond issuer does not default, the bondholder can predict exactly what his return on investment will be. An investor who wants to earn a guaranteed interest rate for a specified term could purchase a fixed-rate Government or Corporate bond.

Floating Coupon Bond

A floating rate note, also known as a floater, is a debt instrument with a variable interest rate. A floating rate note's interest rate, since it is not fixed, is tied to a benchmark such as the Treasury Bill rate, LIBOR / MIBOR, etc.



continued

Staggered Maturity

Most bonds have a 'bullet maturity' i.e. it matures entirely in one go, on the defined maturity date. Some bonds have partial maturities i.e. the principal is redeemed in instalments over various defined dates. This is known as 'staggered maturity' as it happens over a period of time.

Step-up / down Coupon

A step-up bond is a bond that pays an initial coupon rate for the first period, and then a higher coupon rate for the following periods. For example, a five-year bond paying a 6% coupon for the first two years and a 8% coupon for the final three years most likely offers a coupon below current rates at the time of inception, compensating the seller for offering higher coupons in coming periods.

There are perpetual bonds with a step-up coupon condition if the bond is not called on the call date. In this case, the step-up is contingent on an event.



continued

Put-Call

A bond may have a feature of a put option where the investor can 'put' i.e. submit for redemption on the defined date. This option is available with the investor.

Call option is where the issuer can 'call' the bond from the investor i.e. ask for redemption. Call option is with the issuer of the bond. A bond may have only call option, only put option or both.

Zero Coupon

A zero-coupon bond, also known as an "accrual bond," is a debt security that doesn't pay interest (a coupon) but is traded at a deep discount, rendering 'profit' at maturity when the bond is redeemed.

Some zero-coupon bonds are issued as such, while others are bonds that have been stripped of their coupons by a financial institution and then repackaged as zero-coupon bonds.



continued

Tax-frees

Tax-free bonds are ones where the coupon is free of tax. However, capital gains taxes would be applicable. Only PSU entities have the permission to issue tax-free bonds as it requires special permission from the Government for the tax-free status.

Perpetual

Perpetual bonds do not have any maturity. Theoretically, the bond will exist forever and continue to pay the coupon Practically, the bond will exist as long as the issuing entity exists and is in a position to service the coupon payments.



Types of Fixed Income Securities continued

Basel III AT1 perpetual bonds

Under BASEL III Capital Adequacy Norms, Banks have to have 1.5% of their risk- weighted assets as Common Equity Tier I Capital, where perpetual bonds are eligible. Banks are issuing Additional Tier I perpetual bonds to satisfy BASEL IIInorms.

Convertibles

(a) Vanilla Convertible Bonds:

These are the simple, straight forward convertible bonds that we have so far discussed. The conversion is at the option of the owner of the bond while the conversion ratio is pre-determined in the terms of the issue.

(b) Foreign Currency Convertible Bonds

These bonds are basically convertible bonds, but are issued in a currency that is different from issuer's domestic currency. These bonds are often preferred by the issuers since the convertibility option allows them to offer bonds at a lower yield over comparable non-convertible bonds.



Bonds Prevalent in the Market - Wholesale

Central Government Bonds (G-Secs)

The dated securities are issued by the Reserve Bank of India (RBI) on behalf of the Government through an auction process.

The RBI releases a semiannual auction calendar specifying the quantum to be borrowed, the auction dates and the terms of the securities to be ssued.

These securities are perceived to be free of risk of default since they have sovereign credit profile. These securities are the most highly traded and therefore liquid in the secondary market.

State Government Bonds

These bonds are also known as State Development Loans (SDLs).

They are issued by an auction process and usually have a maturity of around ten years.



Concept of UDAY Bonds

Ujwal DISCOM Assurance Yojana (UDAY) is the financial turnaround and revival package for electricity distribution companies of India (DISCOMs) initiated by the Government of India with the intent to find a permanent solution to the financial mess that the power distribution is in.

It allows state governments, which own the Discoms, to take over 75% of their debt as of September 30, 2015, and pay back lenders by selling bonds. Discoms are expected to issue bonds for the remaining 25% of their debt.

The Scheme was launched in November 2015. These bonds are non-SLR.

State Government bonds issued in lieu of Discom loans will be issued at a coupon of up to 75 basis points (bps) over the corresponding benchmark 10-year Central Government bond.



Money Market Instruments

Treasury Bills

Treasury Bills (T Bills) are short term instruments issued by the Central Government with maturities less than one year.

Their purpose is to bridge the gap in revenues and spending of the Government i.e. the deficit

These are intended more to meeting the short term funding needs of the Central Government. Currently, the Central Government issues T Bills of 91-day, 182-day and 364-day maturity.

Since T Bills have a maturity of less than one year, they are considered to be a money market instrument.

T Bills do not carry any interest. Instead, they are issued at a discount to their face value and redeemed at face value. Such a security is known as a Zero Coupon Security.



Money Market Instruments

Commercial Papers

CPs are issued by corporates (mostly NBFCs), as a source of short term finance. A corporate entity is allowed to CP only if:

- a) Its tangible net worth as per the latest audited financial statements is Rs. 4 crore or more
- b) The company has been sanctioned a working capital limit by bank/s or all India financial institution/s
- c) The company's borrowings are classified as a 'standard asset' by the bank/s or the all- India financial institution.

The CP issue is required to be mandatorily rated by a recognized credit rating agency and the issue cannot be made unless it has the specified credit rating.

The minimum amount of CPs that can be issued is Rs. 5 Lakh and further in multiples thereof



Money Market Instruments

Certificate of Deposits

CDs are allowed to be issued by banks and select all-India Financial Institutions as a source to meet short-term funding needs.

Ideally, banks use CDs as a source of finance during a credit pick-up i.e. When incremental deposits are unable to finance incremental credit.

These are privately placed unsecured instruments in the form of promissory notes. Banks can issue CDs of any amount depending on their requirements.

CDs are issued mostly as zero-coupon securities i.e. these are mostly discounted instruments.



Concept of PTC Securitization

What is Securitization?

Creation of a security (hence securitization) out of a future receivable. It may be personal loan, automobile loans, credit card receivables, residential mortgages or any other form of future receivables.

The Bank / institution doing the securitization hives off the receivables into a separate company / trust called Special Purpose Vehicle (SPV).



Types of Bond Auctions

The dated Government securities are issued by the Reserve Bank of India (RBI) on behalf of the Government through an auction process.

The RBI releases a semi-annual auction calendar specifying the quantum to be borrowed, the auction dates and the terms of the securities to be issued.

The Public Debt Office (PDO) of the RBI manages this auction and also facilitates servicing of the debt i.e. payment of periodic interest and repayment at maturity.



Types of Bond Auctions continued

A **Dutch** auction is a public offering auction structure in which the price of the offering is set after taking in all bids to determine the highest price at which the offering can be sold.

In this type of auction, investors place a bid for the amount they are willing to buy in terms of quantity and price.

A Dutch auction also refers to a type of auction in which the price on an item is lowered until it gets a bid.

The first bid made is the winning bid and results in a sale, assuming that the price is above the reserve price.

This is in contrast to typical options, where the price rises as bidders compete.



Types of Bond Auctions

continued

French auctions are uniform-price auctions.

The essential process of the French auction is to set what is known as a minimum or reserve price for each security that is made available as part of the offering.

The concept of 'winner's curse' is applicable to Dutch auction - you get the deal, but pay a higher price.



G-Sec Auctions

The auction procedure followed by RBI is the commonly used multiple-price sealed-bid auction.

The bidders electronically submit sealed competitive bids specifying the price they are willing to pay for a particular amount.

For dated securities auctions, investors belonging to eligible categories may also submit non-competitive bids up to a ceiling of Rs.2 crore without specifying price.

Once all the bids are received during the bidding time, RBI allocates the competitive bids starting from highest price bid and moving down until entire amount is allocated.

In a multiple price-auction, each successful bidder pays the price stated in his bid.

In case of 'uniform price' auctions, all successful bidders pay the same price that is cut-off price at which the market clears the issue.

The method of auction is announced well in advance in the issue announcement notification.



XIRR

Money Market

Principle Comparison of

Bonds Separate excel



Excel based computations

- XIRR
- XNPV
- Accrual
- Clean Price
- Dirty Price
- Other concepts
- Wholesale 'telephone driven' deal convention
- Exchange 'screen based' convention



Quiz

It may be easier to value bonds as compared to equities for which of the following reasons?

- A. There is no maturity value for common stock
- B. The future cash flows of bonds are known
- C. Both the above
- D. None of the above

Tax-free bonds are issued / can be issued by

- A. The central Government
- B. The state governments
- C. Certain PSUs specially notified for this purpose
- D. Any PSU



Quiz

The term "security" is primarily defined under which of the following Acts?

- A. Securities Contract (Regulation) Act
- B. Securities and Exchange Board of India (SEBI)
- C. Reserve Bank of India Act
- D. Depositories Act

In a fixed coupon rate security, the coupon rate is usually based on?

- A. Expected interest rates at the time of the maturity
- B. Average of prevailing interest rate and rates expected over the life of the security
- C. Interest rates prevailing at the time of the issue
- D None of the above



Quiz

Modified duration of a bond measures:

- A. Sensitivity to interest rate movements in the market
- B. The return I will obtain by holding the bond till maturity
- C. The period till which I should ideally hold the bond
- D. None of the above

In a bond deal, dirty price represents:

- A. The price of a bad quality bond
- B. Clean price plus accrued interest on the bond
- C. The price for selling a bond in duress
- D. None of the above



Thank You