

SPECIAL ISSUE ON BONDS

27-06-2021


NSB | Business
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FINANCE

30th
EDITION

BONDS

History:

The first recorded bond in history dates back to 2400 B.C. – a stone discovered at Nippur, in Mesopotamia, now present-day Iraq. This particular bond guaranteed the payment of grain by the principal and the surety bond guaranteed reimbursement if the principal failed to make payment. Corn was the currency of that time



The first-ever government bond was issued by the Bank of England in 1693 to raise money to fund a war against France. These first bonds were a mix of both lottery and annuity.

The first U.S. Treasury bonds, which were initially called “Liberty Bonds,” were issued to fund World War I. In 1917, the First Liberty Loan Act authorized the issue of \$5 billion worth of bonds at 3.5 percent interest three weeks after the United States declared war on Germany.

SAMPLES



GOVERNMENT OF INDIA

DRAFT OF SOVEREIGN GOLD BOND SCHEME

RBI will issue sovereign gold bonds on behalf of the government

The bonds, in demat form, will be marketed through post offices and brokers on a commission basis

The bonds will be issued in 2, 5, 10 grams of gold or other denominations

The tenor of the bond could be for a minimum of 5-7 years

On maturity, investor gets equivalent of the face value of gold in rupee terms

The rate of interest on the bonds will be payable in terms of grams of gold

Likely interest rate will be 2 per cent

or 3 per cent

The bonds can be sold and traded on commodity exchanges

There will be a cap of 500 grams per person per year

Upside gains and downside risks will be with the investor

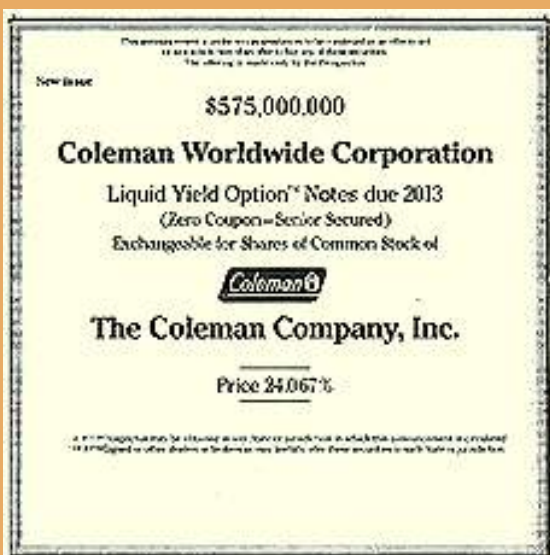
Will attract capital gains tax as is applicable to bars and coins

The bonds can be used as collateral for loans

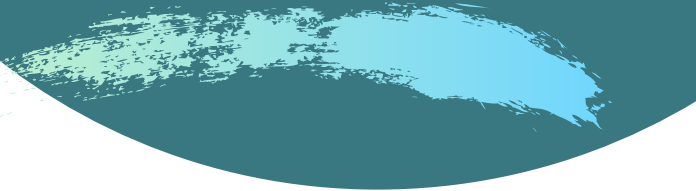
The Know Your Customer norms will be the same as that of gold

Estimated stocks of gold in India - over 20,000 tonnes

India, the world's largest consumer of gold, imports around 800-900 tonnes of the metal annually



CHARACTERISTICS OF BONDS:



- Fixed income securities are financial instruments that pay periodical coupon payments and a principle payment at the end of maturity.
- Bonds, CDs, Preferred shares are a few types of fixed income securities.
- These bonds are generally issued by governments, municipalities, states and corporate entities to raise capital for financing projects, operations, etc. This type of funding is called debt financing.
- Bonds are contracts to specify that a lender (bondholder/purchaser) is owed a certain amount of money that is to be paid according to the agreement of the borrower (Governments, corporations).
- Bonds are fixed-income securities and not fixed return securities.

Rating

A bond rating is a grade given to a bond depending on its creditworthiness. The ratings can vary from AAA to AA to A and further down. AAA is considered the highest rating and bonds with this rating are generally considered the safest. Any bond that has credit ratings of BBB and above are labeled as investment-grade bonds or safe bonds in India. This rating is given to the company (bond issuer) by rating agencies on the basis of various financial factors of the bond issuer. Some of the most commonly considered factors are the issuer's previous financial strength or ability to repay the principal and interest on time.

TERMINOLOGIES

Coupons:

When bonds were issued in the form of certificates and were held physically, the lenders had to tear off actual coupons attached to the bond certificate and mail them to the borrowers in order to receive the coupon payment.

The coupon payments are a percentage of the face value called coupon rates of the bond. These rates are determined based on the maturity and value of bonds

Maturity:

The bonds are issued for a certain period of time based on the requirement of the financing by the borrower. At the end of maturity period, the initial principle is paid

Face Value:

Face value is the designated value per unit of a bond when the bond is issued by the bond issuer. Normally, in the Indian Bond market, the face value of a bond can range from as low as Rs 1000 to as high as Rs 1 Cr.

Payment Frequency

The payment frequency or payment schedule of bonds is the dates on which the interest is paid to bondholders by bond issuing companies. The payment frequency can vary from monthly, quarterly, bi-annually to annually. Some payment dates can be customized by the bondholder

Yield to Maturity (YTM):

Yield to maturity is the effective returns that an investor gets by investing in a bond and then holding it till maturity. Simply put, the yield, measured in %, is the interest rate at which an investor invests money in the bond to generate the cash flows from the bond till it matures.



TYPES OF BOND

Based on Maturity

Long Term Bond

Intermediate Bond

Short Term Bond

Based on Coupon Payment

Fixed Rate Bond

Floating Rate Bond

Zero Coupon Bond

Based on Maturity

Callable Bonds

Puttable Bond

Convertible Bonds

Long term Bonds

Long-term bonds come with a term to maturity of between 10 years and 30 years. Such bonds generally pay a higher interest rate than short-term and intermediate bonds. Bond issuers are willing to pay a higher interest rate for the bonds in exchange for locking the bond for a longer period of time.

Intermediate Bonds

Intermediate bonds come with a term to maturity of 5 to 10 years, and they pay higher returns than short-term bonds, but lower than long-term bonds. Intermediate bonds are preferred by investors with higher risk tolerance and who expect to earn higher yields at maturity.

Short term Bonds

A short-term bond is a bond with a term to maturity of between 1 to 5 years. Short-term bonds can be issued by any entity such as investment-grade corporations, government institutions, and companies rated below investment grade.

Intermediate Bonds

Fixed rate bonds have a coupon that remains constant throughout the life of the bond. A variation is a stepped-coupon bonds, whose coupon increases during the life of the bond.

Floating Rate Bonds

Floating rate notes (FRNs, floaters) have a variable coupon that is linked to a reference rate of interest, such as LIBOR or Euribor. For example the coupon may be defined as three month USD LIBOR + 0.20%. The coupon rate is recalculated periodically, typically every one or three months.

Zero Coupon Bonds

Zero-coupon bonds pay no regular interest. They are issued at a substantial discount to par value, so that the interest is effectively rolled up to maturity (and usually taxed as such). The bondholder receives the full principal amount on the redemption date. Zero-coupon bonds may be created from fixed rate bonds by a financial institution separating ("stripping off") the coupons from the principal. In other words, the separated coupons and the final principal payment of the bond may be traded separately.



Callable Bonds

Callable bonds are bonds that give the issuer the right to redeem or buy back all or part of the bond before it matures. A call provision is beneficial to the issuer because if they are able to issue bonds at a lower interest rate they can call the bonds and do so.

Puttable Bonds

A puttable bond is a bond that gives the bondholder the ability to sell the bond back to the issuer at a predetermined price on predetermined dates. Puttable bonds can either offer one sell-back opportunity (European style), or multiple sell-back opportunities (Bermuda style) which are generally more expensive than one-time put bonds.

Convertible Bonds

A convertible bond is where the bondholder has the right to exchange the bond for a specified number of the company's common shares.

Apart from these, there are

- Perpetual Bonds,
- War Bonds,
- Serial Bonds,
- Climate Bonds,
- Inflation-linked Bonds





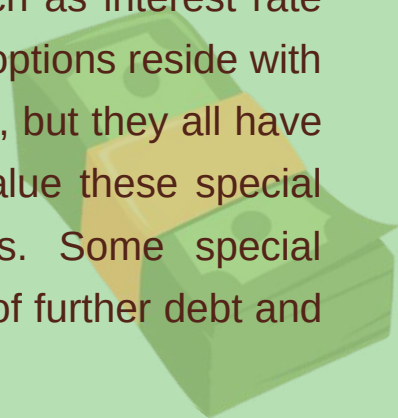
VALUATION OF BONDS



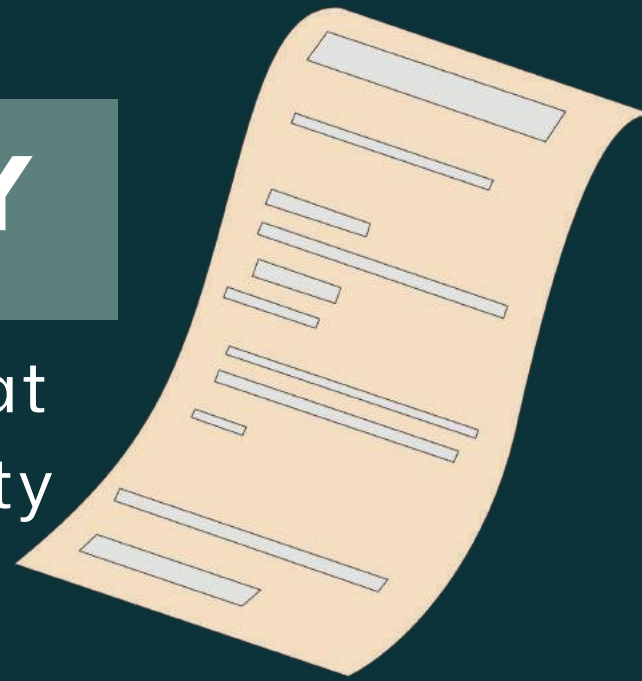
The valuation of bonds is similar to other assets, we calculate the present value of the expected cash flows.

For a simple bond, we have fixed cash flows, so the present value of the bond can vary inversely with the interest rate. This interest rate on a bond is determined by the general level of interest rates (applies to all bonds and financial investments) and default premium (specific to the entity issuing the bond)

- The general level of interest rates incorporates expected inflation and a measure of real return and reflects the term structure, with bonds of different maturities carrying different interest rates.
- The default premium varies across time, depending in large part on the health of the economy and investors' risk preferences.
- Bonds often have special features embedded in them that have to be factored into the value. Other bond characteristics, such as interest rate caps and floors, have optional features. Some of these options reside with the issuer of the bond, some with the buyer of the bond, but they all have to be priced. Option pricing models can be used to value these special features and price complex fixed income securities. Some special features in bonds such as sinking funds, subordination of further debt and the type of collateral may affect the prices of bonds.



BOND VS EQUITY



There are **two features** that set bonds apart from equity investments.

1. The cash flows on a bond, i.e., the coupon payments and the face value of the bond, are usually set at issue and do not change during the life of the bond. Even when they do change, as in floating rate bonds, the changes are generally linked to changes in interest rates.
2. Bonds usually have fixed lifetimes, unlike stocks, since most bonds specify a maturity date. As a consequence, the present value of a 'straight bond' with fixed coupons and specified maturity is determined entirely by changes in the discount rate (which incorporates both the general level of interest rates and the specific default risk of the bond being valued)



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