Bond

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4:37 PM

Debt instrument

* Bills
* Notes
* Bonds

The issuere promised to pay the bondholder a fixed amount of interest each year for a fiexed time period and the issuer promise to pay the bondholder the face value of the bond when it comes to matuirity date.So bond are considered as fixed-income securities.

Intrinsic features

par value

aka face value, principal value, redemption value, maturity value. commonly $1k or 5k

face value is not the same as the bond's market value.

maturity

coupon rate

aka nominal yield

The number of coupon payments made per year is known as the frequency. Normally, interest on bonds in paied semi-annually.

there are threre standard wway for the bond issuer to pay interest to the bondholders:

* fixed rate coupon
* floating rate coupon based on some benchmark: e.g. 3M LIBOR + 50BP
* zero coupon:there are no coupon payments during the life of the bonds. Zero coupon bonds are sold at discount.

Machine generated alternative text: Example
Coupon rate = 10%
Face value per bond = $1,000
If the coupon is annual interest payment then coupon amount per bond
= (10% X $1,000)
= $100
If the coupon is semi-annual interest payment then coupon amount per bond
$100/2
=$50

Bond holder have first clamin on issuer's assets if issuer fails to make timly payment of interests, resulting inn re-organizaiton or bankruptcy.

不同类型的bond也会有bondholder在aclaim assert上的优先级的不同。

* senior bond
* unsecured bond
* subordinated bond(junior bond)

callable bonds: it grant the issuer the right to retire the bond earlier.

puttable bonds: it grants the investor the right to sell the bond ealier

Investors may purchase bonds between coupon payment dates

The typical total settlement amount(dirty price) is the sum of the clean price of the bond plus accrued interest.

clean price: price agreed by the buyer and the seller. like 101% of the par value

price maybe be = > < par value.

Since the fixed coupon does not change, the price of the bond will fluctuate as a result of the changes in the market interest rate.

accured interest

this is the interest earned but not paied yet since the last coupon pay date.

day convetions: to calculate accured interest

actual days/360, actual days/365, actual days/actual days in the year, 30/365, 30/365

Two kind date

transaction date: date on which the seller and the buyer agree to sell/buy the bond

settlement date: date on which the seller is expected to deliver the secureities and the buyer is expected to pay for the purchase amount plus accured interest. typically it's T+3

Factors that affecting the coupon rate

* risk free rate
* expectied future inflation
* rating
* the tenor
* investor demand

Who issue bonds

* goverement
* government agencies
* municipalities
* corporations
* supranational issues(World bank)

* mortgage bond
* collateral trust bond
* asset-baked securites
* guaranteeed bonds
* debentures

Machine generated alternative text: The terminology used in the market to recognize the pnce of a bond relative to its
par value is as follows:
PREMIUM - Bond with price ABOVE 100 is priced at premium
100% (PAR) . Bond with price AT 100 is priced at par
¿
DISCOUNT - Bond with price BELOW 100 is priced at discount

Current Yield

Machine generated alternative text: Annual Dollar Interest Paid
Current Yield = ________________________ * 1OŒ/o
Market Price
So, if you purchased a bond with a par value of S100 for $95.92 and it paid a coupon rate of 5%, thìs
is how you’d calculate its current yield:
(0.05 * $100) * 100% = 5,21%
— $g5.g2Machine generated alternative text: r Annual Coupon 1 * loo + [(loo — Market Price)1
Adjusted Current Yield = [ Market Pr ice J L Years to Maturity j
Let’s re-calculate the yield of the bond in our first example, which matures in 30 months and has a
coupon payment of $5:
$5 * 100+ (100- 95.92) = 6.84%
= $95.92 2.5

Machine generated alternative text: Now we must also account for other factors such as the coupon payment for a zero-coupon bonc
which has only one coupon payment. For such a bond, the yield calculation would be as follows:
. ( Future Value ‘
Yield=i I —1
LPurchase Price)
n = years left until maturity
If we were considering a zero-coupon bond that has a future value of $1,000 that matures in two
years and can be currently purchased for $925, we would calculate its current yield with the
following formula:
Yield = _____ - 1
925 )
= 0.03975 or 3.98%