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#### 1. Yankee Bonds

US firms aren't the only issuers of securities outside their national borders. For example, foreign firms can issue securities in the US if they follow US security registration procedures. Yankee bonds are US dollar-denominated bonds that are issued in the US by a non-US issuer. Some issuers also find the longer maturities of Yankees attractive to meet long-term financing needs. While Eurodollar bonds typically mature in ten years or less, Yankees have maturities as long as 30 years. See also **Eurodollar bonds**]

#### 2. Year End Selling

A popular suggestion of invstment advisors, at year end, is to sell securites for which an investor has incurred substantial losses and purchas an equivalent security. See also **January effect**]

# 3. Yield

The return provided by an instrument. For example, yield for investing in stock is equal to dividend yield plus capital gain yield.

## 4. Yield Curve

Diagram relating market interest rates to term-tomaturity on securities that differ only in terms of maturity. Alternatively it implies the set of yields to maturity for bonds with different times of maturity. [See also **Term structure of interest rates**]

## 5. Yield Curve Swap

A subset of the basis swap; involves exchange of interest payments indexed to a short-term rate for payments indexed to a long-term.

## 6. Yield Rate

Tax-equivalent interest income divided by earning assets.

#### 7. Yield to Maturity

The yield to maturity or market interest rate is the effective annual rate of return demanded by investors on bonds of a given maturity and risk. To properly discount the semi-annual coupons, we must determine the periodic interest rate that corresponds to the effective annual rate. We can calculate the effective annual rate for compounding *m* times per year as:

 $EAR = YTM = (1 + Periodic interest rate)^m - 1$ 

in order to solve for the periodic interest rate

Periodic interest rate =  $(1 + YTM)^{\frac{1}{m}} - 1$ .

There are two alternatives to calculate yield to maturity.

## Alternative 1: Formal Method

Bond price quotes are available in the marketplace, either from bond dealers or from the daily price listings found in secondary sources, such as *The Wall Street Journal*. Both investors and financial managers must calculate the yield to maturity on bonds, given known par values, coupon rates, times to maturity, and current prices. The yield to maturity can be determined from the present value of an annuity factor (*PVIFA*) and present value interest factor (*PVIF*) formulas we used to compute bond price:

$$Price = \$ CF/2 \left[ \frac{1 - \left(\frac{1}{1+r}\right)^n}{r} \right] + Par \left[ \frac{1}{(1+r)^n} \right],$$

where r represents the periodic interest rate; and n is the number of semiannual periods until the bond

matures. The yield to maturity equals  $(1 + r)^2 - 1$ ; the stated annual rate equals  $r \times 2$ . But mathematics offers no simple technique for computing r. It is easier to use available technology to solve for the periodic rate. Financial calculators can generally be used to calculate the *YTM*. The *YTM* for a zero coupon bond can be defined as:  $YTM = \left(\frac{par}{price}\right)^{\frac{1}{n}} - 1$ .

For a quick estimate of return, the approximation method can be used. Here, the average annual dollar return to the investor of a bond that matures in n years is the coupon payment plus a straight-line amortization of the bond's premium (or discount):

Average annual dollar return = Annual coupon +  $\frac{Par - Price}{n}$ .

The average amount invested in the bond is the average of its purchase price and par value:

Average investment = 
$$\frac{Par + Price}{2}$$
.

The approximate yield to maturity

$$=\frac{Annual\ Coupon + \frac{Par - Price}{n}}{\frac{Par + Price}{2}}$$

#### 8. Yield-Giveup Swap

The yield-giveup swap version of the intermarketspread swap works against the investor over time. Therefore, when a swap involves a loss in yield, there is a high premium to be placed on achieving a favorable spread change within a relatively short workout period.

#### 9. Yield-Pickup Swap

In a pure yield-pickup swap, there is no expectation of market changes but a simple attempt to increase yield. Basically two bonds are examined to establish their difference in yield to maturity, with a further adjustment to consider the impact of interim reinvestment of coupons at an assumed rate of return between now and the maturity date.