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### 1. Zero Coupon Bonds

Zero coupon bonds pay no coupon interest and provide only one cash flow: payment of their par value upon maturity. Treasury bills are a form of zero coupon debt. An investor purchases a T-bill at a price below par and receives no interest or other cash flows until maturity. At that time, the investor receives the par value of the T-bill. The return on the security is the difference between its discount price and its par value.

The primary reason for the popularity of zero coupon bonds is that investors do not face any reinvestment rate risk. As these bonds provide no cash flows to reinvest, investors effectively lock in a given yield to maturity. However, under IRS regulations, investors must pay yearly taxes on the *implicit* interest paid by the bonds; the IRS has special rules for determining this value. In essence, investors must pay taxes on income they have not received. Thus, zero coupon bonds are mainly purchased by tax-exempt investors who pay no tax on their investment returns, such as pension funds.

Issuing a zero coupon bond also helps to lower borrowing costs for the firm. The original discount can be expensed for tax purposes on a straight-line basis over the life of the bond. Thus, rather than cash outflows from coupon interest payments, the issuing firm receives annual cash inflows from tax savings. However, the issuer must plan for a large capital requirement at the maturity of these bonds.

### 2. Zero Gap

Gap can be either positive, negative, or zero. Zero gap implies that rate sensitive asset equal rate sensitive liability.

# 3. Zero Rate

See also Zero-coupon interest rate]

## 4. Zero-Balance Accounts

Zero-balance accounts (ZBAs) centralize cash control at the main corporate office. The zero-balance account is a specialized disbursement account on which the firm writes checks against a zero balance. Authorized employees write checks on their departmental accounts, but the firm maintains no funds in these accounts. Instead, these accounts accumulate negative bank balances daily. The cash-control system corrects these daily negative balances by releasing funds from a corporate master account, restoring them to zero balances each day.

A zero-balance account offers a firm with many operating divisions several benefits:

- Greater centralized control over disbursements.
- Elimination of redundant idle bank balances in different banks.
- Reduction of cash transfer expenses.
- More effective cash investments.
- Greater autonomy for local managers.

A ZBA system does require the firm to maintain all accounts at the same concentration bank, however.

### 5. Zero-Beta Portfolio

The minimum-variance portfolio uncorrelated with a chosen efficient portfolio. This portfolio has beta equal to zero.

#### 6. Zero-Cost Collar

The purchase of a put and sale of a call where the strikes are chosen so that the premiums of the two options are the same.

#### 7. Zero-Coupon Interest Rate

The interest rate that would be earned on a bond that provides no coupons.

### 8. Zero-Coupon Swap

All cash flows of the swap occur at the end of the life of the agreement; payment obligations are compounded to future maturity.

## 9. Zero-Coupon Yield Curve

The set of yields to maturity for zero-coupon bonds with different times to maturity. See also **Yield to maturity** for a discussion of calculations]

## 10. Zero-Investment Portfolio

A portfolio of zero net value, established by buying and shorting component securities, usually in the context of an arbitrage strategy.

#### 11. Zero-Plus Tick

[See also Uptick]

### 12. Z-Score Model

Z-score is a statistical measure that presumably indicates the probability of bankruptcy. See also **Credit scoring model**]

#### 13. Z-Tranche

The final class of securities in a CMO exhibiting the longest maturity and greatest price volatility. These securities often accrue interest until all other classes are retired.