I = annual interest
Nd = net proceeds from sale of
n = # of years to the bond's maturity

# CHAPTER 9

## BEFORE TAX COST OF DEBT ($r_d$)

$$r_d = \frac{I + \frac{1000 - N_d}{n}}{\frac{N_d + 1000}{2}}$$

## AFTER TAX COST OF DEBT

$$r_i = r_d \times (1 - T)$$

## COST OF PREFERRED STOCK

$$r_p = \frac{D_p}{N_p}$$

$D_p$ = annual dollar dividend
$N_p$ = net proceeds from the sale of stock

## VALUE OF COMMON STOCK (constant-growth valuation model)

$$P_0 = \frac{D_1}{r_s - g}$$

$D_1$ = per share dividend expected
$r_s$ = required return on common stock
$g$ = constant rate of growth dividend

## COST OF COMMON STOCK EQUITY

$$r_s = \frac{D_1}{P_0} + g$$

## CAPM

$$r_s = R_F + [b \times (r_m - R_F)]$$

$R_F$ = risk free rate
$b$ = beta coefficient
$r_m$ = market return

## COST OF RETAINED EARNINGS

$$r_r = r_s$$

## COST OF NEW ISSUES OF COMMON STOCK

$$r_n = \frac{D_1}{N_n} + g$$

## WACC

$$r_a = (w_i \times r_i) + (w_p \times r_p) + (w_s \times r_r \text{ or } n)$$

| Source of capital | Weight | Cost | Weighted cost |
|---|---|---|---|
| | | | |