APPENDIX D

SELECTED EQUATIONS AND DATA (WEB)

CHAPTER 2

Individual Tax Rates For April 2003

Single Individuals

IF YOUR TAXABLE INCOME IS	YOU PAY THIS AMOUNT ON THE BASE OF THE BRACKET	PLUS THIS PERCENTAGE ON THE EXCESS OVER THE BASE	AVERAGE TAX RATE AT TOP OF BRACKET
Up to $6,000	$ 0	10.0%	10.0%
$6,000–$27,950	600.00	15.0	13.9
$27,950–$67,700	3,892.50	27.0	21.6
$67,700–$141,250	14,625.00	30.0	26.0
$141,250–$307,050	36,690.00	35.0	30.8
Over $307,050	94,720.00	38.6	38.6

Married Couples Filing Joint Returns

IF YOUR TAXABLE INCOME IS	YOU PAY THIS AMOUNT ON THE BASE OF THE BRACKET	PLUS THIS PERCENTAGE ON THE EXCESS OVER THE BASE	AVERAGE TAX RATE AT TOP OF BRACKET
Up to $12,000	$ 0	10.0%	10.0%
$12,000–$46,700	1,200.00	15.0	13.7
$46,700–$112,850	6,405.00	27.0	21.5
$112,850–$171,950	24,265.50	30.0	24.4
$171,950–$307,050	41,995.50	35.0	29.1
Over $307,050	89,280.50	38.6	38.6

Corporate Tax Rates As of January 2002

IF A CORPORATION'S TAXABLE INCOME IS	IT PAYS THIS AMOUNT ON THE BASE OF THE BRACKET	PLUS THIS PERCENTAGE ON THE EXCESS OVER THE BASE	AVERAGE TAX RATE AT TOP OF BRACKET
Up to $50,000	$ 0	15.0%	15.0%
$50,000–$75,000	7,500	25.0	18.3
$75,000–$100,000	13,750	34.0	22.3
$100,000–$335,000	22,250	39.0	34.0
$335,000–$10,000,000	113,900	34.0	34.0
$10,000,000–$15,000,000	3,400,000	35.0	34.3
$15,000,000–$18,333,333	5,150,000	38.0	35.0
Over $18,333,333	6,416,667	35.0	35.0

$$\text{Equivalent pre-tax yield on taxable bond} = \frac{\text{Muni yield}}{(1 - T)}.$$

After-tax income = Before-tax income(1 − T).

CHAPTER 5

$$b = \frac{Y_2 - Y_1}{X_2 - X_1} = \text{Slope coefficient in } \bar{k}_{it} = a + b\,\bar{k}_{Mt} + e_t.$$

CHAPTER 6

$FV_n = PV(FVIF_{i,n})$.
$PV_n = FV(PVIF_{i,n})$.
$FVA_n = PMT(FVIFA_{i,n})$.
$FVA_n(\text{Annuity due}) = PMT(FVIFA_{i,n})(1 + i)$.
$PVA_n = PMT(PVIFA_{i,n})$.
$PVA_n(\text{Annuity due}) = PMT(PVIFA_{i,n})(1 + i)$.
$FV_n = PV(e^{in})$.
$PV = FV_n(e^{-in})$.

CHAPTER 7

Accrued value at end of Year n = Issue price × $(1 + k_d)^n$.
Interest in Year n = Accrued value_n − Accrued value_{n-1}.
Tax savings = (Interest deduction)(T).

CHAPTER 9

$k_p = k_{RF} + (k_M - k_{RF})b_p$.

CHAPTER 11

Recovery Allowance Percentage for Personal Property

	CLASS OF INVESTMENT			
OWNERSHIP YEAR	**3-YEAR**	**5-YEAR**	**7-YEAR**	**10-YEAR**
1	33%	20%	14%	10%
2	45	32	25	18
3	15	19	17	14
4	7	12	13	12
5		11	9	9
6		6	9	7
7			9	7
8			4	7
9				7
10				6
11				3
	100%	100%	100%	100%

CHAPTER 13

$$DOL = \frac{\frac{\Delta EBIT}{EBIT}}{\frac{\Delta Q}{Q}}.$$

$$DOL_Q = \frac{Q(P - V)}{Q(P - V) - F}.$$

$$DOL_S = \frac{S - VC}{S - VC - F}.$$

$$DFL = \frac{EBIT}{EBIT - I}.$$

$$DTL = (DOL)(DFL).$$

$$DTL = \frac{Q(P - V)}{Q(P - V) - F - I}.$$

$$DTL = \frac{S - VC}{S - VC - F - I}.$$

$$EPS_1 = EPS_0[1 + (DTL)(\%\Delta Sales)].$$

CHAPTER 17

$$\text{Arithmetic average} = \frac{\Sigma(g_i)}{N}.$$

$$\text{Geometric average} = [\pi(1 + g_i)]^{1/N} - 1.$$