

**APPENDIX D**

**SELECTED EQUATIONS AND DATA (WEB)**

**CHAPTER 2**

**INDIVIDUAL TAX RATES FOR APRIL 2003**

*Single Individuals*

<b>IF YOUR TAXABLE INCOME IS</b>	<b>YOU PAY THIS AMOUNT ON THE BASE OF THE BRACKET</b>	<b>PLUS THIS PERCENTAGE ON THE EXCESS OVER THE BASE</b>	<b>AVERAGE TAX RATE AT TOP OF BRACKET</b>
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*

<b>IF YOUR TAXABLE INCOME IS</b>	<b>YOU PAY THIS AMOUNT ON THE BASE OF THE BRACKET</b>	<b>PLUS THIS PERCENTAGE ON THE EXCESS OVER THE BASE</b>	<b>AVERAGE TAX RATE AT TOP OF BRACKET</b>
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**

<b>IF A CORPORATION'S TAXABLE INCOME IS</b>	<b>IT PAYS THIS AMOUNT ON THE BASE OF THE BRACKET</b>	<b>PLUS THIS PERCENTAGE ON THE EXCESS OVER THE BASE</b>	<b>AVERAGE TAX RATE AT TOP OF BRACKET</b>
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

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

$$\text{After-tax income} = \text{Before-tax income}(1 - T)$$

### 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

$$\text{Accrued value at end of Year } n = \text{Issue price} \times (1 + k_d)^n$$

$$\text{Interest in Year } n = \text{Accrued value}_n - \text{Accrued value}_{n-1}$$

$$\text{Tax savings} = (\text{Interest deduction})(T)$$

### CHAPTER 9

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

### CHAPTER 11

#### Recovery Allowance Percentage for Personal Property

OWNERSHIP YEAR	CLASS OF INVESTMENT			
	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 12**

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

$$\text{DOL}_Q = \frac{Q(P - V)}{Q(P - V) - F}$$

$$\text{DOL}_S = \frac{S - VC}{S - VC - F}$$

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

$$\text{DTL} = (\text{DOL})(\text{DFL})$$

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

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

$$\text{EPS}_1 = \text{EPS}_0 [1 + (\text{DTL})(\% \Delta \text{Sales})]$$

**CHAPTER 15**

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

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