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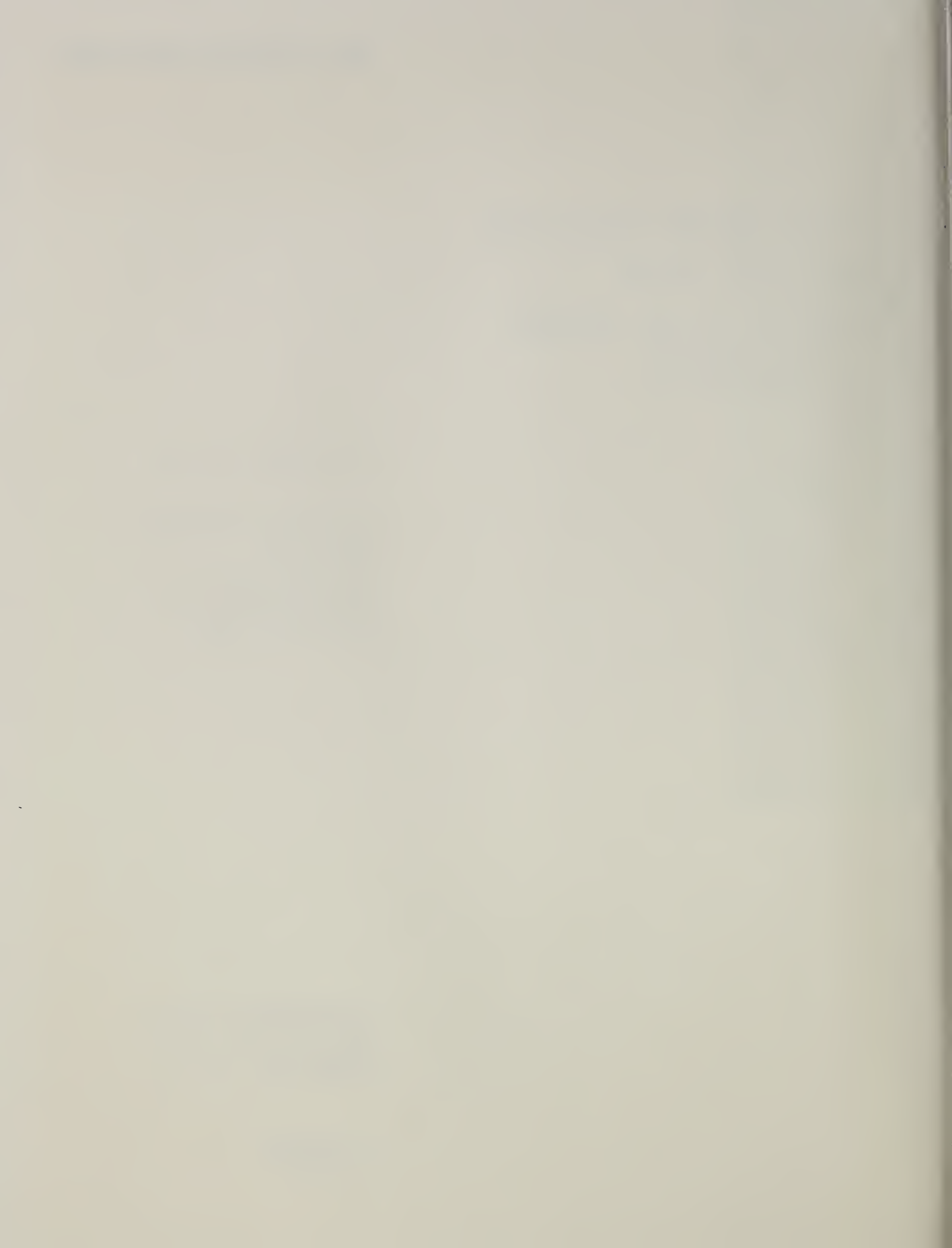
DISCOUNT FACTOR TABLES FOR LIFE-CYCLE COST ANALYSES

Stephen R. Petersen

**U.S. DEPARTMENT OF COMMERCE
National Institute of Standards
and Technology
National Engineering Laboratory
Applied Economics Group
Center for Applied Computing
and Mathematical Analysis
Gaithersburg, MD 20899**

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Abstract

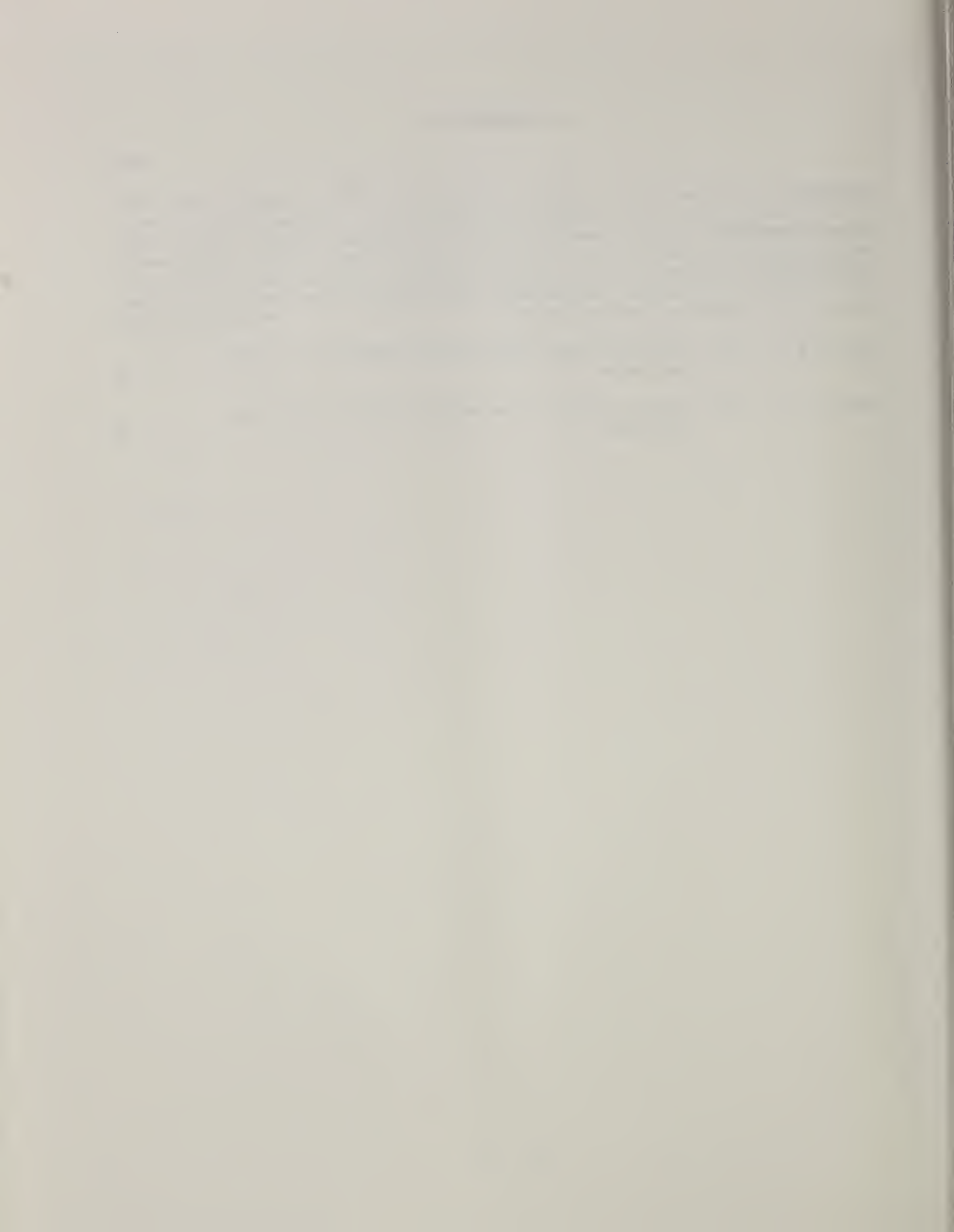
This report presents eight types of precalculated discount factors that are useful for life-cycle cost studies. Three sets of discount factor tables are provided. The first set includes six common single-payment and uniform-series discount factors. The second set of tables presents uniform present value factors for a series of payments increasing from period to period at a given rate, rather than remaining constant over the entire study period. The third set of tables presents single present value factors for determining the present value of a single payment occurring at a future point in time, to be used when that payment is specified in base-time prices but is expected to increase in value over time at a specified periodic rate. The tables cover discount rates from 1 to 25%, and time periods from 1 to 40 years. Examples of the correct usage of each of these discount factors are provided.

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CONTENTS

	Page
ABSTRACT	iii
ACKNOWLEDGMENTS	iv
INTRODUCTION	1
Tables 1-25 Discrete Discount Factors	6
Tables U-1 - U-25 Uniform Present Value Factors Modified for Price Increases	31
Tables S-1 - S-25 Single Present Value Factors Modified for Price Increases	56



INTRODUCTION

This report presents eight types of precalculated discount factors that are useful for performing life-cycle cost analyses. These discount factors are used to convert cash amounts accruing at different times to equivalent values at a selected time. Examples of the correct usage of each of these discount factors are provided and calculation procedures for each are shown.

Three sets of discount factor tables are included in this report. The first set includes six single-payment and uniform-series discount factors (Tables 1 through 25). The second set of tables presents uniform present value factors for a series of payments increasing from period to period at a given rate, rather than remaining constant over the entire study period (Tables U-1 through U-25). The third set of tables presents single present value factors for determining the present value of a single payment occurring at a future point in time, to be used when that payment is specified in base-time prices but is expected to increase in value over time at a specified periodic rate (Tables S-1 through S-25). The factors for all three tables have been calculated to four significant digits. The tables cover discount rates from 1 to 25%, and time periods from 1 to 40 years.

The six types of discount factors shown in tables 1-25 are based on the equations shown below:

Single Compound-Amount (SCA) Equation

$$F = P \cdot \left[(1 + i)^n \right] \quad (1)$$

Single Present-Value (SPV) Equation

$$P = F \cdot \left[\frac{1}{(1 + i)^n} \right] \quad (2)$$

Uniform Capital-Recovery (UCR) Equation

$$A = P \cdot \left[\frac{i(1 + i)^n}{(1 + i)^n - 1} \right] \quad (3)$$

Uniform Present-Value (UPV) Equation

$$P = A \cdot \left[\frac{(1 + i)^n - 1}{i(1 + i)^n} \right] \quad (4)$$

Uniform Sinking-Fund (USF) Equation

$$A = F \cdot \left[\frac{i}{(1 + i)^n - 1} \right] \quad (5)$$

Uniform Compound-Amount (UCA) Equation

$$F = A \cdot \left[\frac{(1 + i)^n - 1}{i} \right] \quad (6)$$

where:

P = present sum of money,

F = future sum of money equivalent to P at the end of n periods of time at discount rate i,

A = end-of-period payment (or receipt) in a uniform series of payments (or receipts) over n periods at i interest or discount rate,

n = number of interest or discount periods, and

i = interest or discount rate.

Discount factors have been precalculated for each of these six discounting operations and made available as a single multiplicative numbers. These are presented in tables 1-25. The formula for each discount factor appears at the top of each of the tables and in brackets in the equations above. The calculation of present, future, and annual values using the discounting equations and corresponding factors shown previously is illustrated below for six standard cases.

The SCA factor, when multiplied by P, a present sum of money invested at interest rate, i, gives the sum of money, F, available at the end of n periods. For example, column two in Table 10 indicates that one dollar invested at the beginning of period one earning 10% interest will accumulate roughly \$2.60 at the end of 10 years. Similarly, \$1,000 will accumulate \$2,594 ($\$1,000 \times 2.594 = \$2,594$).

The SPV factor is used in calculating the present value of a sum of money, F, received (or paid) at the end of n periods. For instance, column three in Table 10 shows that at a discount rate of 10% the present value of \$1,000 to be received at the end of the tenth year would be about \$386 ($\$1,000 \times 0.3855 = \385.50).

The UCR factor is used to determine the uniform end-of-period payments, A, which must be received (paid) annually for n years to recover the initial investment, P, with interest at rate i. Column four in Table 10 indicates that \$1,000 invested in period one at 10% will provide an annual flow of about \$163 for ten years (that is, $\$1,000 \times 0.1627 = \162.70).

The UPV factor is used to convert a series of uniform end-of-period payments (receipts), A, occurring over n years, discounted at interest rate i, into an equivalent present value, P. Column five of Table 10 shows that \$1,000 invested each year at 10% for 10 years will provide the investor with \$6,145 (\$1,000 x 6.145 = \$6,145).

The USF factor is applied to calculate an end-of-period uniform payment, A, required to establish a future fund of amount F. Using column six in Table 10, it can be shown that to accumulate an amount of \$1,000 at the end of 10 years will require a uniform annual payment of about \$63 (\$1,000 x 0.0627 = \$62.70).

The UCA factor is used to determine an accumulated sum of money, F, at the end of n periods, resulting from a series of uniform annual payments (receipts), A, occurring over n periods at interest rate i. Column seven in Table 10 shows that if \$1,000 is invested annually at 10% for 10 years, the accumulated sum at the end of the period would be \$15,940 (\$1,000 x 15.94 = \$15,940).

Equations 7 and 8 below are discounting equations for calculating present values (P) of a stream of annual payments that begin with the value of A_0 and escalate at some rate (e) over n discounting periods. These equations differ from the UPV formulas shown earlier in that discounting rate i is combined with price escalation in one equation. These tables have been used to handle price escalation in the building industry.

$$P = A_0 \cdot \left[\sum_{j=1}^n \frac{(1+e)^j}{(1+i)^j} \right] \quad \text{for all cases, and} \quad (7)$$

$$P = A_0 \cdot \left[\frac{1+e}{i-e} \right] \cdot \left[1 - \frac{(1+e)^n}{(1+i)^n} \right] \quad \text{when } e \neq i. \quad (8)$$

where:

- P = a present sum of money,
- A_0 = initial value of a periodic payment (receipt) evaluated at the beginning of the study period,
- n = number of interest or discounting periods,
- e = price escalation rate, and
- i = interest or discount rate for the period considered.

The discount factors provided in Tables U-1 through U-25, called modified UPV factors, are calculated from the expression in brackets in Equation 7. Each table presents discount factors for a specified discount rate and rates of price increase ranging from 1 to 20% (even values only above 10%). A different rate of price increase can be assumed for each type of annually

recurring cost in a LCC analysis, e.g., operating, maintenance, and energy costs. While the discount rate and the rates of price increase can include general inflation (i.e., nominal rates) or exclude general inflation (i.e., real rates), both rates *must* be consistent with regard to this assumption.

The following examples illustrate the use of these modified UPV factors for both assumptions about general inflation. (1) Rates include general inflation: Assuming that the cost of heating a given house today is \$1,200 per year, that heating energy costs are expected to rise each year at rate of 5% per year, and that the discount rate (i.e., the opportunity cost of capital) is 10% per year, the present value of the cost to heat this house over 40 years would be \$21,276 (\$1,200 x 17.73, where the 17.73 is taken from the 5% column of Table U-10). (2) Rates exclude general inflation: Assuming that the cost of routine maintenance of a government research facility is currently \$500,000 per year, but is expected to increase 1% each year over and above general inflation, and that the government discount rate is 10% per year, net of general inflation, the present value of routine maintenance costs over the next 25 years would be \$4,947,000 (9.894 x \$500,000, where the 9.894 is taken from the 1% column of Table U-10).

Equation 9 below is the discounting equation for calculating the present value of a single amount (either cost or revenue) in year n, when the amount is designated in current dollars as of the beginning of the study period (F_0), and is expected to increase at rate e over n discounting periods. This equation combines two distinct calculations: (1) estimating a future amount when that amount is known in today's dollars (or as of the beginning of the study period) and the periodic rate of price increase can be estimated, and (2) discounting that future cost to present value. This equation differs from the Equation 2 above in that the payment amount (F) in year n is not known directly, but is instead expressed as a current amount (F_0) subject to price increase at rate e.

$$P = F_0 \left(\frac{1 + e}{1 + i} \right)^n \quad (9)$$

where:

- P = a present sum of money,
- F_0 = the future amount designated in today's dollars (or at the beginning of the study period),
- n = number of discounting periods,
- e = price escalation rate, and
- i = interest or discount rate for the period considered.

The discount factors provided in Tables S-1 through S-25, called modified SPV factors, are calculated from Equation 9. Each table presents discount factors for a given discount rate and rates of price increase ranging from 1 to 20% (even values only above 10%). A different rate of price increase can be assumed for each type of non-annually recurring future cost in a LCC analysis (e.g., replacement costs and resale value). While the discount rate and rates of price increase can include general inflation or exclude general inflation, both rates *must* be consistent with regard to this assumption.

The following examples illustrate the use of these modified SPV factors for both assumptions about general inflation. (1) Rates include general inflation: Assume that a heat pump compressor must be replaced after ten years, and that the current cost of such a replacement is \$1,000. Assume further that mechanical equipment costs increase at approximately 5% per year, and that the homeowners discount rate is 10%. The present value of the compressor replacement at the end of year 10 is then \$628 ($\$1,000 \times 0.6280$, where the 0.6280 is taken from the 5% column of Table S-10). (2) Rates exclude general inflation: Assume that a government-owned office building, currently valued at \$1,000,000, is to be sold at the end of a 10-year period. Buildings in this location typically increase in value 2% faster than general inflation. The present value of this sale, given a 10% real discount rate, would be \$470,000 ($0.4700 \times \$1,000,000$, where the 0.4700 is taken from the 2% column of Table S-10).

Table 1. Discrete Discount Factors^a for $i = 1\%$

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given:	P	F	P	A	F	A
To find:	F	P	A	P	A	F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.010	0.9901	1.010	0.9901	1.000	1.000
2	1.020	0.9803	0.5075	1.970	0.4975	2.010
3	1.030	0.9706	0.3400	2.941	0.3300	3.030
4	1.041	0.9610	0.2563	3.902	0.2463	4.060
5	1.051	0.9515	0.2060	4.853	0.1960	5.101
6	1.062	0.9420	0.1725	5.795	0.1625	6.152
7	1.072	0.9327	0.1486	6.728	0.1386	7.214
8	1.083	0.9235	0.1307	7.652	0.1207	8.286
9	1.094	0.9143	0.1167	8.566	0.1067	9.369
10	1.105	0.9053	0.1056	9.471	0.0956	10.46
11	1.116	0.8963	0.0965	10.37	0.0865	11.57
12	1.127	0.8874	0.0888	11.26	0.0788	12.68
13	1.138	0.8787	0.0824	12.13	0.0724	13.81
14	1.149	0.8700	0.0769	13.00	0.0669	14.95
15	1.161	0.8613	0.0721	13.87	0.0621	16.10
16	1.173	0.8528	0.0679	14.72	0.0579	17.26
17	1.184	0.8444	0.0643	15.56	0.0543	18.43
18	1.196	0.8360	0.0610	16.40	0.0510	19.61
19	1.208	0.8277	0.0581	17.23	0.0481	20.81
20	1.220	0.8195	0.0554	18.05	0.0454	22.02
21	1.232	0.8114	0.0530	18.86	0.0430	23.24
22	1.245	0.8034	0.0509	19.66	0.0409	24.47
23	1.257	0.7954	0.0489	20.46	0.0389	25.72
24	1.270	0.7876	0.0471	21.24	0.0371	26.97
25	1.282	0.7798	0.0454	22.02	0.0354	28.24
26	1.295	0.7720	0.0439	22.80	0.0339	29.53
27	1.308	0.7644	0.0424	23.56	0.0324	30.82
28	1.321	0.7568	0.0411	24.32	0.0311	32.13
29	1.335	0.7493	0.0399	25.07	0.0299	33.45
30	1.348	0.7419	0.0387	25.81	0.0287	34.78
31	1.361	0.7346	0.0377	26.54	0.0277	36.13
32	1.375	0.7273	0.0367	27.27	0.0267	37.49
33	1.389	0.7201	0.0357	27.99	0.0257	38.87
34	1.403	0.7130	0.0348	28.70	0.0248	40.26
35	1.417	0.7059	0.0340	29.41	0.0240	41.66
36	1.431	0.6989	0.0332	30.11	0.0232	43.08
37	1.445	0.6920	0.0325	30.80	0.0225	44.51
38	1.460	0.6852	0.0318	31.48	0.0218	45.95
39	1.474	0.6784	0.0311	32.16	0.0211	47.41
40	1.489	0.6717	0.0305	32.83	0.0205	48.89

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 2. Discrete Discount Factors^a for $i = 2\%$

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.020	0.9804	1.020	0.9804	1.000	1.000
2	1.040	0.9612	0.5151	1.942	0.4951	2.020
3	1.061	0.9423	0.3468	2.884	0.3268	3.060
4	1.082	0.9238	0.2626	3.808	0.2426	4.122
5	1.104	0.9057	0.2122	4.713	0.1922	5.204
6	1.126	0.8880	0.1785	5.601	0.1585	6.308
7	1.149	0.8706	0.1545	6.472	0.1345	7.434
8	1.172	0.8535	0.1365	7.325	0.1165	8.583
9	1.195	0.8368	0.1225	8.162	0.1025	9.755
10	1.219	0.8203	0.1113	8.983	0.0913	10.95
11	1.243	0.8043	0.1022	9.787	0.0822	12.17
12	1.268	0.7885	0.0946	10.58	0.0746	13.41
13	1.294	0.7730	0.0881	11.35	0.0681	14.68
14	1.319	0.7579	0.0826	12.11	0.0626	15.97
15	1.346	0.7430	0.0778	12.85	0.0578	17.29
16	1.373	0.7284	0.0737	13.58	0.0537	18.64
17	1.400	0.7142	0.0700	14.29	0.0500	20.01
18	1.428	0.7002	0.0667	14.99	0.0467	21.41
19	1.457	0.6864	0.0638	15.68	0.0438	22.84
20	1.486	0.6730	0.0612	16.35	0.0412	24.30
21	1.516	0.6598	0.0588	17.01	0.0388	25.78
22	1.546	0.6468	0.0566	17.66	0.0366	27.30
23	1.577	0.6342	0.0547	18.29	0.0347	28.84
24	1.608	0.6217	0.0529	18.91	0.0329	30.42
25	1.641	0.6095	0.0512	19.52	0.0312	32.03
26	1.673	0.5976	0.0497	20.12	0.0297	33.67
27	1.707	0.5859	0.0483	20.71	0.0283	35.34
28	1.741	0.5744	0.0470	21.28	0.0270	37.05
29	1.776	0.5631	0.0458	21.84	0.0258	38.79
30	1.811	0.5521	0.0446	22.40	0.0246	40.57
31	1.848	0.5412	0.0436	22.94	0.0236	42.38
32	1.885	0.5306	0.0426	23.47	0.0226	44.23
33	1.922	0.5202	0.0417	23.99	0.0217	46.11
34	1.961	0.5100	0.0408	24.50	0.0208	48.03
35	2.000	0.5000	0.0400	25.00	0.0200	49.99
36	2.040	0.4902	0.0392	25.49	0.0192	51.99
37	2.081	0.4806	0.0385	25.97	0.0185	54.03
38	2.122	0.4712	0.0378	26.44	0.0178	56.11
39	2.165	0.4619	0.0372	26.90	0.0172	58.24
40	2.208	0.4529	0.0366	27.36	0.0166	60.40

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 3. Discrete Discount Factors^a for i = 3%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.030	0.9709	1.030	0.9709	1.000	1.000
2	1.061	0.9426	0.5226	1.913	0.4926	2.030
3	1.093	0.9151	0.3535	2.829	0.3235	3.091
4	1.126	0.8885	0.2690	3.717	0.2390	4.184
5	1.159	0.8626	0.2184	4.580	0.1884	5.309
6	1.194	0.8375	0.1846	5.417	0.1546	6.468
7	1.230	0.8131	0.1605	6.230	0.1305	7.662
8	1.267	0.7894	0.1425	7.020	0.1125	8.892
9	1.305	0.7664	0.1284	7.786	0.0984	10.16
10	1.344	0.7441	0.1172	8.530	0.0872	11.46
11	1.384	0.7224	0.1081	9.253	0.0781	12.81
12	1.426	0.7014	0.1005	9.954	0.0705	14.19
13	1.469	0.6810	0.0940	10.63	0.0640	15.62
14	1.513	0.6611	0.0885	11.30	0.0585	17.09
15	1.558	0.6419	0.0838	11.94	0.0538	18.60
16	1.605	0.6232	0.0796	12.56	0.0496	20.16
17	1.653	0.6050	0.0760	13.17	0.0460	21.76
18	1.702	0.5874	0.0727	13.75	0.0427	23.41
19	1.754	0.5703	0.0698	14.32	0.0398	25.12
20	1.806	0.5537	0.0672	14.88	0.0372	26.87
21	1.860	0.5375	0.0649	15.42	0.0349	28.68
22	1.916	0.5219	0.0627	15.94	0.0327	30.54
23	1.974	0.5067	0.0608	16.44	0.0308	32.45
24	2.033	0.4919	0.0590	16.94	0.0290	34.43
25	2.094	0.4776	0.0574	17.41	0.0274	36.46
26	2.157	0.4637	0.0559	17.88	0.0259	38.55
27	2.221	0.4502	0.0546	18.33	0.0246	40.71
28	2.288	0.4371	0.0533	18.76	0.0233	42.93
29	2.357	0.4243	0.0521	19.19	0.0221	45.22
30	2.427	0.4120	0.0510	19.60	0.0210	47.58
31	2.500	0.4000	0.0500	20.00	0.0200	50.00
32	2.575	0.3883	0.0490	20.39	0.0190	52.50
33	2.652	0.3770	0.0482	20.77	0.0182	55.08
34	2.732	0.3660	0.0473	21.13	0.0173	57.73
35	2.814	0.3554	0.0465	21.49	0.0165	60.46
36	2.898	0.3450	0.0458	21.83	0.0158	63.28
37	2.985	0.3350	0.0451	22.17	0.0151	66.17
38	3.075	0.3252	0.0445	22.49	0.0145	69.16
39	3.167	0.3158	0.0438	22.81	0.0138	72.23
40	3.262	0.3066	0.0433	23.11	0.0133	75.40

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 4. Discrete Discount Factors^a for $i = 4\%$

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given:	P	F	P	A	F	A
To find:	F	P	A	P	A	F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.040	0.9615	1.040	0.9615	1.000	1.000
2	1.082	0.9246	0.5302	1.886	0.4902	2.040
3	1.125	0.8890	0.3603	2.775	0.3203	3.122
4	1.170	0.8548	0.2755	3.630	0.2355	4.246
5	1.217	0.8219	0.2246	4.452	0.1846	5.416
6	1.265	0.7903	0.1908	5.242	0.1508	6.633
7	1.316	0.7599	0.1666	6.002	0.1266	7.898
8	1.369	0.7307	0.1485	6.733	0.1085	9.214
9	1.423	0.7026	0.1345	7.435	0.0945	10.58
10	1.480	0.6756	0.1233	8.111	0.0833	12.01
11	1.539	0.6496	0.1141	8.760	0.0741	13.49
12	1.601	0.6246	0.1066	9.385	0.0666	15.03
13	1.665	0.6006	0.1001	9.986	0.0601	16.63
14	1.732	0.5775	0.0947	10.56	0.0547	18.29
15	1.801	0.5553	0.0899	11.12	0.0499	20.02
16	1.873	0.5339	0.0858	11.65	0.0458	21.82
17	1.948	0.5134	0.0822	12.17	0.0422	23.70
18	2.026	0.4936	0.0790	12.66	0.0390	25.65
19	2.107	0.4746	0.0761	13.13	0.0361	27.67
20	2.191	0.4564	0.0736	13.59	0.0336	29.78
21	2.279	0.4388	0.0713	14.03	0.0313	31.97
22	2.370	0.4220	0.0692	14.45	0.0292	34.25
23	2.465	0.4057	0.0673	14.86	0.0273	36.62
24	2.563	0.3901	0.0656	15.25	0.0256	39.08
25	2.666	0.3751	0.0640	15.62	0.0240	41.65
26	2.772	0.3607	0.0626	15.98	0.0226	44.31
27	2.883	0.3468	0.0612	16.33	0.0212	47.08
28	2.999	0.3335	0.0600	16.66	0.0200	49.97
29	3.119	0.3207	0.0589	16.98	0.0189	52.97
30	3.243	0.3083	0.0578	17.29	0.0178	56.08
31	3.373	0.2965	0.0569	17.59	0.0169	59.33
32	3.508	0.2851	0.0559	17.87	0.0159	62.70
33	3.648	0.2741	0.0551	18.15	0.0151	66.21
34	3.794	0.2636	0.0543	18.41	0.0143	69.86
35	3.946	0.2534	0.0536	18.66	0.0136	73.65
36	4.104	0.2437	0.0529	18.91	0.0129	77.60
37	4.268	0.2343	0.0522	19.14	0.0122	81.70
38	4.439	0.2253	0.0516	19.37	0.0116	85.97
39	4.616	0.2166	0.0511	19.58	0.0111	90.41
40	4.801	0.2083	0.0505	19.79	0.0105	95.03

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 5. Discrete Discount Factors^a for $i = 5\%$

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given:	P	F	P	A	F	A
To find:	F	P	A	P	A	F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.050	0.9524	1.050	0.9524	1.000	1.000
2	1.102	0.9070	0.5378	1.859	0.4878	2.050
3	1.158	0.8638	0.3672	2.723	0.3172	3.152
4	1.216	0.8227	0.2820	3.546	0.2320	4.310
5	1.276	0.7835	0.2310	4.329	0.1810	5.526
6	1.340	0.7462	0.1970	5.076	0.1470	6.802
7	1.407	0.7107	0.1728	5.786	0.1228	8.142
8	1.477	0.6768	0.1547	6.463	0.1047	9.549
9	1.551	0.6446	0.1407	7.108	0.0907	11.03
10	1.629	0.6139	0.1295	7.722	0.0795	12.58
11	1.710	0.5847	0.1204	8.306	0.0704	14.21
12	1.796	0.5568	0.1128	8.863	0.0628	15.92
13	1.886	0.5303	0.1065	9.394	0.0565	17.71
14	1.980	0.5051	0.1010	9.899	0.0510	19.60
15	2.079	0.4810	0.0963	10.38	0.0463	21.58
16	2.183	0.4581	0.0923	10.84	0.0423	23.66
17	2.292	0.4363	0.0887	11.27	0.0387	25.84
18	2.407	0.4155	0.0855	11.69	0.0355	28.13
19	2.527	0.3957	0.0827	12.09	0.0327	30.54
20	2.653	0.3769	0.0802	12.46	0.0302	33.07
21	2.786	0.3589	0.0780	12.82	0.0280	35.72
22	2.925	0.3419	0.0760	13.16	0.0260	38.51
23	3.072	0.3256	0.0741	13.49	0.0241	41.43
24	3.225	0.3101	0.0725	13.80	0.0225	44.50
25	3.386	0.2953	0.0710	14.09	0.0210	47.73
26	3.556	0.2812	0.0696	14.38	0.0196	51.11
27	3.733	0.2678	0.0683	14.64	0.0183	54.67
28	3.920	0.2551	0.0671	14.90	0.0171	58.40
29	4.116	0.2429	0.0660	15.14	0.0160	62.32
30	4.322	0.2314	0.0651	15.37	0.0151	66.44
31	4.538	0.2204	0.0641	15.59	0.0141	70.76
32	4.765	0.2099	0.0633	15.80	0.0133	75.30
33	5.003	0.1999	0.0625	16.00	0.0125	80.06
34	5.253	0.1904	0.0618	16.19	0.0118	85.07
35	5.516	0.1813	0.0611	16.37	0.0111	90.32
36	5.792	0.1727	0.0604	16.55	0.0104	95.84
37	6.081	0.1644	0.0598	16.71	0.0098	101.6
38	6.385	0.1566	0.0593	16.87	0.0093	107.7
39	6.705	0.1491	0.0588	17.02	0.0088	114.1
40	7.040	0.1420	0.0583	17.16	0.0083	120.8

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 6. Discrete Discount Factors^a for i = 6%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n						
1	1.060	0.9434	1.060	0.9434	1.000	1.000
2	1.124	0.8900	0.5454	1.833	0.4854	2.060
3	1.191	0.8396	0.3741	2.673	0.3141	3.184
4	1.262	0.7921	0.2886	3.465	0.2286	4.375
5	1.338	0.7473	0.2374	4.212	0.1774	5.637
6	1.419	0.7050	0.2034	4.917	0.1434	6.975
7	1.504	0.6651	0.1791	5.582	0.1191	8.394
8	1.594	0.6274	0.1610	6.210	0.1010	9.897
9	1.689	0.5919	0.1470	6.802	0.0870	11.49
10	1.791	0.5584	0.1359	7.360	0.0759	13.18
11	1.898	0.5268	0.1268	7.887	0.0668	14.97
12	2.012	0.4970	0.1193	8.384	0.0593	16.87
13	2.133	0.4688	0.1130	8.853	0.0530	18.88
14	2.261	0.4423	0.1076	9.295	0.0476	21.02
15	2.397	0.4173	0.1030	9.712	0.0430	23.28
16	2.540	0.3936	0.0990	10.11	0.0390	25.67
17	2.693	0.3714	0.0954	10.48	0.0354	28.21
18	2.854	0.3503	0.0924	10.83	0.0324	30.91
19	3.026	0.3305	0.0896	11.16	0.0296	33.76
20	3.207	0.3118	0.0872	11.47	0.0272	36.79
21	3.400	0.2942	0.0850	11.76	0.0250	39.99
22	3.604	0.2775	0.0830	12.04	0.0230	43.39
23	3.820	0.2618	0.0813	12.30	0.0213	47.00
24	4.049	0.2470	0.0797	12.55	0.0197	50.82
25	4.292	0.2330	0.0782	12.78	0.0182	54.86
26	4.549	0.2198	0.0769	13.00	0.0169	59.16
27	4.822	0.2074	0.0757	13.21	0.0157	63.71
28	5.112	0.1956	0.0746	13.41	0.0146	68.53
29	5.418	0.1846	0.0736	13.59	0.0136	73.64
30	5.743	0.1741	0.0726	13.76	0.0126	79.06
31	6.088	0.1643	0.0718	13.93	0.0118	84.80
32	6.453	0.1550	0.0710	14.08	0.0110	90.89
33	6.841	0.1462	0.0703	14.23	0.0103	97.34
34	7.251	0.1379	0.0696	14.37	0.0096	104.2
35	7.686	0.1301	0.0690	14.50	0.0090	111.4
36	8.147	0.1227	0.0684	14.62	0.0084	119.1
37	8.636	0.1158	0.0679	14.74	0.0079	127.3
38	9.154	0.1092	0.0674	14.85	0.0074	135.9
39	9.703	0.1031	0.0669	14.95	0.0069	145.1
40	10.29	0.0972	0.0665	15.05	0.0065	154.8

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 7. Discrete Discount Factors^a for i = 7%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.070	0.9346	1.070	0.9346	1.000	1.000
2	1.145	0.8734	0.5531	1.808	0.4831	2.070
3	1.225	0.8163	0.3811	2.624	0.3111	3.215
4	1.311	0.7629	0.2952	3.387	0.2252	4.440
5	1.403	0.7130	0.2439	4.100	0.1739	5.751
6	1.501	0.6663	0.2098	4.767	0.1398	7.153
7	1.606	0.6227	0.1856	5.389	0.1156	8.654
8	1.718	0.5820	0.1675	5.971	0.0975	10.26
9	1.838	0.5439	0.1535	6.515	0.0835	11.98
10	1.967	0.5083	0.1424	7.024	0.0724	13.82
11	2.105	0.4751	0.1334	7.499	0.0634	15.78
12	2.252	0.4440	0.1259	7.943	0.0559	17.89
13	2.410	0.4150	0.1197	8.358	0.0497	20.14
14	2.579	0.3878	0.1143	8.745	0.0443	22.55
15	2.759	0.3624	0.1098	9.108	0.0398	25.13
16	2.952	0.3387	0.1059	9.447	0.0359	27.89
17	3.159	0.3166	0.1024	9.763	0.0324	30.84
18	3.380	0.2959	0.0994	10.06	0.0294	34.00
19	3.617	0.2765	0.0968	10.34	0.0268	37.38
20	3.870	0.2584	0.0944	10.59	0.0244	41.00
21	4.141	0.2415	0.0923	10.84	0.0223	44.87
22	4.430	0.2257	0.0904	11.06	0.0204	49.01
23	4.741	0.2109	0.0887	11.27	0.0187	53.44
24	5.072	0.1971	0.0872	11.47	0.0172	58.18
25	5.427	0.1842	0.0858	11.65	0.0158	63.25
26	5.807	0.1722	0.0846	11.83	0.0146	68.68
27	6.214	0.1609	0.0834	11.99	0.0134	74.48
28	6.649	0.1504	0.0824	12.14	0.0124	80.70
29	7.114	0.1406	0.0814	12.28	0.0114	87.35
30	7.612	0.1314	0.0806	12.41	0.0106	94.46
31	8.145	0.1228	0.0798	12.53	0.0098	102.1
32	8.715	0.1147	0.0791	12.65	0.0091	110.2
33	9.325	0.1072	0.0784	12.75	0.0084	118.9
34	9.978	0.1002	0.0778	12.85	0.0078	128.3
35	10.68	0.0937	0.0772	12.95	0.0072	138.2
36	11.42	0.0875	0.0767	13.04	0.0067	148.9
37	12.22	0.0818	0.0762	13.12	0.0062	160.3
38	13.08	0.0765	0.0758	13.19	0.0058	172.6
39	13.99	0.0715	0.0754	13.26	0.0054	185.6
40	14.97	0.0668	0.0750	13.33	0.0050	199.6

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 8. Discrete Discount Factors^a for i = 8%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.080	0.9259	1.080	0.9259	1.000	1.000
2	1.166	0.8573	0.5608	1.783	0.4808	2.080
3	1.260	0.7938	0.3880	2.577	0.3080	3.246
4	1.360	0.7350	0.3019	3.312	0.2219	4.506
5	1.469	0.6806	0.2505	3.993	0.1705	5.867
6	1.587	0.6302	0.2163	4.623	0.1363	7.336
7	1.714	0.5835	0.1921	5.206	0.1121	8.923
8	1.851	0.5403	0.1740	5.747	0.0940	10.64
9	1.999	0.5002	0.1601	6.247	0.0801	12.49
10	2.159	0.4632	0.1490	6.710	0.0690	14.49
11	2.332	0.4289	0.1401	7.139	0.0601	16.65
12	2.518	0.3971	0.1327	7.536	0.0527	18.98
13	2.720	0.3677	0.1265	7.904	0.0465	21.50
14	2.937	0.3405	0.1213	8.244	0.0413	24.21
15	3.172	0.3152	0.1168	8.559	0.0368	27.15
16	3.426	0.2919	0.1130	8.851	0.0330	30.32
17	3.700	0.2703	0.1096	9.122	0.0296	33.75
18	3.996	0.2502	0.1067	9.372	0.0267	37.45
19	4.316	0.2317	0.1041	9.604	0.0241	41.45
20	4.661	0.2145	0.1019	9.818	0.0219	45.76
21	5.034	0.1987	0.0998	10.02	0.0198	50.42
22	5.437	0.1839	0.0980	10.20	0.0180	55.46
23	5.871	0.1703	0.0964	10.37	0.0164	60.89
24	6.341	0.1577	0.0950	10.53	0.0150	66.76
25	6.848	0.1460	0.0937	10.67	0.0137	73.11
26	7.396	0.1352	0.0925	10.81	0.0125	79.95
27	7.988	0.1252	0.0914	10.94	0.0114	87.35
28	8.627	0.1159	0.0905	11.05	0.0105	95.34
29	9.317	0.1073	0.0896	11.16	0.0096	104.0
30	10.06	0.0994	0.0888	11.26	0.0088	113.3
31	10.87	0.0920	0.0881	11.35	0.0081	123.3
32	11.74	0.0852	0.0875	11.44	0.0075	134.2
33	12.68	0.0789	0.0869	11.51	0.0069	146.0
34	13.69	0.0730	0.0863	11.59	0.0063	158.6
35	14.79	0.0676	0.0858	11.65	0.0058	172.3
36	15.97	0.0626	0.0853	11.72	0.0053	187.1
37	17.25	0.0580	0.0849	11.78	0.0049	203.1
38	18.63	0.0537	0.0845	11.83	0.0045	220.3
39	20.12	0.0497	0.0842	11.88	0.0042	238.9
40	21.72	0.0460	0.0839	11.92	0.0039	259.1

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 9. Discrete Discount Factors^a for $i = 9\%$

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.090	0.9174	1.090	0.9174	1.000	1.000
2	1.188	0.8417	0.5685	1.759	0.4785	2.090
3	1.295	0.7722	0.3951	2.531	0.3051	3.278
4	1.412	0.7084	0.3087	3.240	0.2187	4.573
5	1.539	0.6499	0.2571	3.890	0.1671	5.985
6	1.677	0.5963	0.2229	4.486	0.1329	7.523
7	1.828	0.5470	0.1987	5.033	0.1087	9.200
8	1.993	0.5019	0.1807	5.535	0.0907	11.03
9	2.172	0.4604	0.1668	5.995	0.0768	13.02
10	2.367	0.4224	0.1558	6.418	0.0658	15.19
11	2.580	0.3875	0.1469	6.805	0.0569	17.56
12	2.813	0.3555	0.1397	7.161	0.0497	20.14
13	3.066	0.3262	0.1336	7.487	0.0436	22.95
14	3.342	0.2992	0.1284	7.786	0.0384	26.02
15	3.642	0.2745	0.1241	8.061	0.0341	29.36
16	3.970	0.2519	0.1203	8.313	0.0303	33.00
17	4.328	0.2311	0.1170	8.544	0.0270	36.97
18	4.717	0.2120	0.1142	8.756	0.0242	41.30
19	5.142	0.1945	0.1117	8.950	0.0217	46.02
20	5.604	0.1784	0.1095	9.129	0.0195	51.16
21	6.109	0.1637	0.1076	9.292	0.0176	56.76
22	6.659	0.1502	0.1059	9.442	0.0159	62.87
23	7.258	0.1378	0.1044	9.580	0.0144	69.53
24	7.911	0.1264	0.1030	9.707	0.0130	76.79
25	8.623	0.1160	0.1018	9.823	0.0118	84.70
26	9.399	0.1064	0.1007	9.929	0.0107	93.32
27	10.25	0.0976	0.0997	10.03	0.0097	102.7
28	11.17	0.0895	0.0989	10.12	0.0089	113.0
29	12.17	0.0822	0.0981	10.20	0.0081	124.1
30	13.27	0.0754	0.0973	10.27	0.0073	136.3
31	14.46	0.0691	0.0967	10.34	0.0067	149.6
32	15.76	0.0634	0.0961	10.41	0.0061	164.0
33	17.18	0.0582	0.0956	10.46	0.0056	179.8
34	18.73	0.0534	0.0951	10.52	0.0051	197.0
35	20.41	0.0490	0.0946	10.57	0.0046	215.7
36	22.25	0.0449	0.0942	10.61	0.0042	236.1
37	24.25	0.0412	0.0939	10.65	0.0039	258.4
38	26.44	0.0378	0.0935	10.69	0.0035	282.6
39	28.82	0.0347	0.0932	10.73	0.0032	309.1
40	31.41	0.0318	0.0930	10.76	0.0030	337.9

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 10. Discrete Discount Factors^a for i = 10%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.100	0.9091	1.100	0.9091	1.000	1.000
2	1.210	0.8264	0.5762	1.736	0.4762	2.100
3	1.331	0.7513	0.4021	2.487	0.3021	3.310
4	1.464	0.6830	0.3155	3.170	0.2155	4.641
5	1.611	0.6209	0.2638	3.791	0.1638	6.105
6	1.772	0.5645	0.2296	4.355	0.1296	7.716
7	1.949	0.5132	0.2054	4.868	0.1054	9.487
8	2.144	0.4665	0.1874	5.335	0.0874	11.44
9	2.358	0.4241	0.1736	5.759	0.0736	13.58
10	2.594	0.3855	0.1627	6.145	0.0627	15.94
11	2.853	0.3505	0.1540	6.495	0.0540	18.53
12	3.138	0.3186	0.1468	6.814	0.0468	21.38
13	3.452	0.2897	0.1408	7.103	0.0408	24.52
14	3.797	0.2633	0.1357	7.367	0.0357	27.97
15	4.177	0.2394	0.1315	7.606	0.0315	31.77
16	4.595	0.2176	0.1278	7.824	0.0278	35.95
17	5.054	0.1978	0.1247	8.022	0.0247	40.54
18	5.560	0.1799	0.1219	8.201	0.0219	45.60
19	6.116	0.1635	0.1195	8.365	0.0195	51.16
20	6.728	0.1486	0.1175	8.514	0.0175	57.28
21	7.400	0.1351	0.1156	8.649	0.0156	64.00
22	8.140	0.1228	0.1140	8.772	0.0140	71.40
23	8.954	0.1117	0.1126	8.883	0.0126	79.54
24	9.850	0.1015	0.1113	8.985	0.0113	88.50
25	10.83	0.0923	0.1102	9.077	0.0102	98.35
26	11.92	0.0839	0.1092	9.161	0.0092	109.2
27	13.11	0.0763	0.1083	9.237	0.0083	121.1
28	14.42	0.0693	0.1075	9.307	0.0075	134.2
29	15.86	0.0630	0.1067	9.370	0.0067	148.6
30	17.45	0.0573	0.1061	9.427	0.0061	164.5
31	19.19	0.0521	0.1055	9.479	0.0055	181.9
32	21.11	0.0474	0.1050	9.526	0.0050	201.1
33	23.23	0.0431	0.1045	9.569	0.0045	222.3
34	25.55	0.0391	0.1041	9.609	0.0041	245.5
35	28.10	0.0356	0.1037	9.644	0.0037	271.0
36	30.91	0.0323	0.1033	9.677	0.0033	299.1
37	34.00	0.0294	0.1030	9.706	0.0030	330.0
38	37.40	0.0267	0.1027	9.733	0.0027	364.0
39	41.14	0.0243	0.1025	9.757	0.0025	401.4
40	45.26	0.0221	0.1023	9.779	0.0023	442.6

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 11. Discrete Discount Factors^a for i = 11%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.110	0.9009	1.110	0.9009	1.000	1.000
2	1.232	0.8116	0.5839	1.713	0.4739	2.110
3	1.368	0.7312	0.4092	2.444	0.2992	3.342
4	1.518	0.6587	0.3223	3.102	0.2123	4.710
5	1.685	0.5935	0.2706	3.696	0.1606	6.228
6	1.870	0.5346	0.2364	4.231	0.1264	7.913
7	2.076	0.4817	0.2122	4.712	0.1022	9.783
8	2.305	0.4339	0.1943	5.146	0.0843	11.86
9	2.558	0.3909	0.1806	5.537	0.0706	14.16
10	2.839	0.3522	0.1698	5.889	0.0598	16.72
11	3.152	0.3173	0.1611	6.207	0.0511	19.56
12	3.498	0.2858	0.1540	6.492	0.0440	22.71
13	3.883	0.2575	0.1482	6.750	0.0382	26.21
14	4.310	0.2320	0.1432	6.982	0.0332	30.09
15	4.785	0.2090	0.1391	7.191	0.0291	34.41
16	5.311	0.1883	0.1355	7.379	0.0255	39.19
17	5.895	0.1696	0.1325	7.549	0.0225	44.50
18	6.544	0.1528	0.1298	7.702	0.0198	50.40
19	7.263	0.1377	0.1276	7.839	0.0176	56.94
20	8.062	0.1240	0.1256	7.963	0.0156	64.20
21	8.949	0.1117	0.1238	8.075	0.0138	72.27
22	9.934	0.1007	0.1223	8.176	0.0123	81.21
23	11.03	0.0907	0.1210	8.266	0.0110	91.15
24	12.24	0.0817	0.1198	8.348	0.0098	102.2
25	13.59	0.0736	0.1187	8.422	0.0087	114.4
26	15.08	0.0663	0.1178	8.488	0.0078	128.0
27	16.74	0.0597	0.1170	8.548	0.0070	143.1
28	18.58	0.0538	0.1163	8.602	0.0063	159.8
29	20.62	0.0485	0.1156	8.650	0.0056	178.4
30	22.89	0.0437	0.1150	8.694	0.0050	199.0
31	25.41	0.0394	0.1145	8.733	0.0045	221.9
32	28.21	0.0355	0.1140	8.769	0.0040	247.3
33	31.31	0.0319	0.1136	8.801	0.0036	275.5
34	34.75	0.0288	0.1133	8.829	0.0033	306.8
35	38.57	0.0259	0.1129	8.855	0.0029	341.6
36	42.82	0.0234	0.1126	8.879	0.0026	380.2
37	47.53	0.0210	0.1124	8.900	0.0024	423.0
38	52.76	0.0190	0.1121	8.919	0.0021	470.5
39	58.56	0.0171	0.1119	8.936	0.0019	523.3
40	65.00	0.0154	0.1117	8.951	0.0017	581.8

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 12. Discrete Discount Factors^a for i = 12%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.120	0.8929	1.120	0.8929	1.000	1.000
2	1.254	0.7972	0.5917	1.690	0.4717	2.120
3	1.405	0.7118	0.4163	2.402	0.2963	3.374
4	1.574	0.6355	0.3292	3.037	0.2092	4.779
5	1.762	0.5674	0.2774	3.605	0.1574	6.353
6	1.974	0.5066	0.2432	4.111	0.1232	8.115
7	2.211	0.4523	0.2191	4.564	0.0991	10.09
8	2.476	0.4039	0.2013	4.968	0.0813	12.30
9	2.773	0.3606	0.1877	5.328	0.0677	14.78
10	3.106	0.3220	0.1770	5.650	0.0570	17.55
11	3.479	0.2875	0.1684	5.938	0.0484	20.65
12	3.896	0.2567	0.1614	6.194	0.0414	24.13
13	4.363	0.2292	0.1557	6.424	0.0357	28.03
14	4.887	0.2046	0.1509	6.628	0.0309	32.39
15	5.474	0.1827	0.1468	6.811	0.0268	37.28
16	6.130	0.1631	0.1434	6.974	0.0234	42.75
17	6.866	0.1456	0.1405	7.120	0.0205	48.88
18	7.690	0.1300	0.1379	7.250	0.0179	55.75
19	8.613	0.1161	0.1358	7.366	0.0158	63.44
20	9.646	0.1037	0.1339	7.469	0.0139	72.05
21	10.80	0.0926	0.1322	7.562	0.0122	81.70
22	12.10	0.0826	0.1308	7.645	0.0108	92.50
23	13.55	0.0738	0.1296	7.718	0.0096	104.6
24	15.18	0.0659	0.1285	7.784	0.0085	118.2
25	17.00	0.0588	0.1275	7.843	0.0075	133.3
26	19.04	0.0525	0.1267	7.896	0.0067	150.3
27	21.32	0.0469	0.1259	7.943	0.0059	169.4
28	23.88	0.0419	0.1252	7.984	0.0052	190.7
29	26.75	0.0374	0.1247	8.022	0.0047	214.6
30	29.96	0.0334	0.1241	8.055	0.0041	241.3
31	33.56	0.0298	0.1237	8.085	0.0037	271.3
32	37.58	0.0266	0.1233	8.112	0.0033	304.8
33	42.09	0.0238	0.1229	8.135	0.0029	342.4
34	47.14	0.0212	0.1226	8.157	0.0026	384.5
35	52.80	0.0189	0.1223	8.176	0.0023	431.7
36	59.14	0.0169	0.1221	8.192	0.0021	484.5
37	66.23	0.0151	0.1218	8.208	0.0018	543.6
38	74.18	0.0135	0.1216	8.221	0.0016	609.8
39	83.08	0.0120	0.1215	8.233	0.0015	684.0
40	93.05	0.0107	0.1213	8.244	0.0013	767.1

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 13. Discrete Discount Factors^a for i = 13%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given:	P	F	P	A	F	A
To find:	F	P	A	P	A	F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.130	0.8850	1.130	0.8850	1.000	1.000
2	1.277	0.7831	0.5995	1.668	0.4695	2.130
3	1.443	0.6931	0.4235	2.361	0.2935	3.407
4	1.630	0.6133	0.3362	2.974	0.2062	4.850
5	1.842	0.5428	0.2843	3.517	0.1543	6.480
6	2.082	0.4803	0.2502	3.998	0.1202	8.323
7	2.353	0.4251	0.2261	4.423	0.0961	10.40
8	2.658	0.3762	0.2084	4.799	0.0784	12.76
9	3.004	0.3329	0.1949	5.132	0.0649	15.42
10	3.395	0.2946	0.1843	5.426	0.0543	18.42
11	3.836	0.2607	0.1758	5.687	0.0458	21.81
12	4.335	0.2307	0.1690	5.918	0.0390	25.65
13	4.898	0.2042	0.1634	6.122	0.0334	29.98
14	5.535	0.1807	0.1587	6.302	0.0287	34.88
15	6.254	0.1599	0.1547	6.462	0.0247	40.42
16	7.067	0.1415	0.1514	6.604	0.0214	46.67
17	7.986	0.1252	0.1486	6.729	0.0186	53.74
18	9.024	0.1108	0.1462	6.840	0.0162	61.73
19	10.20	0.0981	0.1441	6.938	0.0141	70.75
20	11.52	0.0868	0.1424	7.025	0.0124	80.95
21	13.02	0.0768	0.1408	7.102	0.0108	92.47
22	14.71	0.0680	0.1395	7.170	0.0095	105.5
23	16.63	0.0601	0.1383	7.230	0.0083	120.2
24	18.79	0.0532	0.1373	7.283	0.0073	136.8
25	21.23	0.0471	0.1364	7.330	0.0064	155.6
26	23.99	0.0417	0.1357	7.372	0.0057	176.9
27	27.11	0.0369	0.1350	7.409	0.0050	200.8
28	30.63	0.0326	0.1344	7.441	0.0044	227.9
29	34.62	0.0289	0.1339	7.470	0.0039	258.6
30	39.12	0.0256	0.1334	7.496	0.0034	293.2
31	44.20	0.0226	0.1330	7.518	0.0030	332.3
32	49.95	0.0200	0.1327	7.538	0.0027	376.5
33	56.44	0.0177	0.1323	7.556	0.0023	426.5
34	63.78	0.0157	0.1321	7.572	0.0021	482.9
35	72.07	0.0139	0.1318	7.586	0.0018	546.7
36	81.44	0.0123	0.1316	7.598	0.0016	618.7
37	92.02	0.0109	0.1314	7.609	0.0014	700.2
38	104.0	0.0096	0.1313	7.618	0.0013	792.2
39	117.5	0.0085	0.1311	7.627	0.0011	896.2
40	132.8	0.0075	0.1310	7.634	0.0010	1014

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 14. Discrete Discount Factors^a for i = 14%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.140	0.8772	1.140	0.8772	1.000	1.000
2	1.300	0.7695	0.6073	1.647	0.4673	2.140
3	1.482	0.6750	0.4307	2.322	0.2907	3.440
4	1.689	0.5921	0.3432	2.914	0.2032	4.921
5	1.925	0.5194	0.2913	3.433	0.1513	6.610
6	2.195	0.4556	0.2572	3.889	0.1172	8.536
7	2.502	0.3996	0.2332	4.288	0.0932	10.73
8	2.853	0.3506	0.2156	4.639	0.0756	13.23
9	3.252	0.3075	0.2022	4.946	0.0622	16.09
10	3.707	0.2697	0.1917	5.216	0.0517	19.34
11	4.226	0.2366	0.1834	5.453	0.0434	23.04
12	4.818	0.2076	0.1767	5.660	0.0367	27.27
13	5.492	0.1821	0.1712	5.842	0.0312	32.09
14	6.261	0.1597	0.1666	6.002	0.0266	37.58
15	7.138	0.1401	0.1628	6.142	0.0228	43.84
16	8.137	0.1229	0.1596	6.265	0.0196	50.98
17	9.276	0.1078	0.1569	6.373	0.0169	59.12
18	10.58	0.0946	0.1546	6.467	0.0146	68.39
19	12.06	0.0829	0.1527	6.550	0.0127	78.97
20	13.74	0.0728	0.1510	6.623	0.0110	91.02
21	15.67	0.0638	0.1495	6.687	0.0095	104.8
22	17.86	0.0560	0.1483	6.743	0.0083	120.4
23	20.36	0.0491	0.1472	6.792	0.0072	138.3
24	23.21	0.0431	0.1463	6.835	0.0063	158.7
25	26.46	0.0378	0.1455	6.873	0.0055	181.9
26	30.17	0.0331	0.1448	6.906	0.0048	208.3
27	34.39	0.0291	0.1442	6.935	0.0042	238.5
28	39.20	0.0255	0.1437	6.961	0.0037	272.9
29	44.69	0.0224	0.1432	6.983	0.0032	312.1
30	50.95	0.0196	0.1428	7.003	0.0028	356.8
31	58.08	0.0172	0.1425	7.020	0.0025	407.7
32	66.21	0.0151	0.1421	7.035	0.0021	465.8
33	75.48	0.0132	0.1419	7.048	0.0019	532.0
34	86.05	0.0116	0.1416	7.060	0.0016	607.5
35	98.10	0.0102	0.1414	7.070	0.0014	693.6
36	111.8	0.0089	0.1413	7.079	0.0013	791.7
37	127.5	0.0078	0.1411	7.087	0.0011	903.5
38	145.3	0.0069	0.1410	7.094	0.0010	1031
39	165.7	0.0060	0.1409	7.100	0.0009	1176
40	188.9	0.0053	0.1407	7.105	0.0007	1342

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 15. Discrete Discount Factors^a for i = 15%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.150	0.8696	1.150	0.8696	1.000	1.000
2	1.322	0.7561	0.6151	1.626	0.4651	2.150
3	1.521	0.6575	0.4380	2.283	0.2880	3.472
4	1.749	0.5718	0.3503	2.855	0.2003	4.993
5	2.011	0.4972	0.2983	3.352	0.1483	6.742
6	2.313	0.4323	0.2642	3.784	0.1142	8.754
7	2.660	0.3759	0.2404	4.160	0.0904	11.07
8	3.059	0.3269	0.2229	4.487	0.0729	13.73
9	3.518	0.2843	0.2096	4.772	0.0596	16.79
10	4.046	0.2472	0.1993	5.019	0.0493	20.30
11	4.652	0.2149	0.1911	5.234	0.0411	24.35
12	5.350	0.1869	0.1845	5.421	0.0345	29.00
13	6.153	0.1625	0.1791	5.583	0.0291	34.35
14	7.076	0.1413	0.1747	5.724	0.0247	40.50
15	8.137	0.1229	0.1710	5.847	0.0210	47.58
16	9.358	0.1069	0.1679	5.954	0.0179	55.72
17	10.76	0.0929	0.1654	6.047	0.0154	65.08
18	12.38	0.0808	0.1632	6.128	0.0132	75.84
19	14.23	0.0703	0.1613	6.198	0.0113	88.21
20	16.37	0.0611	0.1598	6.259	0.0098	102.4
21	18.82	0.0531	0.1584	6.312	0.0084	118.8
22	21.64	0.0462	0.1573	6.359	0.0073	137.6
23	24.89	0.0402	0.1563	6.399	0.0063	159.3
24	28.63	0.0349	0.1554	6.434	0.0054	184.2
25	32.92	0.0304	0.1547	6.464	0.0047	212.8
26	37.86	0.0264	0.1541	6.491	0.0041	245.7
27	43.54	0.0230	0.1535	6.514	0.0035	283.6
28	50.07	0.0200	0.1531	6.534	0.0031	327.1
29	57.58	0.0174	0.1527	6.551	0.0027	377.2
30	66.21	0.0151	0.1523	6.566	0.0023	434.7
31	76.14	0.0131	0.1520	6.579	0.0020	501.0
32	87.57	0.0114	0.1517	6.591	0.0017	577.1
33	100.7	0.0099	0.1515	6.600	0.0015	664.7
34	115.8	0.0086	0.1513	6.609	0.0013	765.4
35	133.2	0.0075	0.1511	6.617	0.0011	881.2
36	153.2	0.0065	0.1510	6.623	0.0010	1014
37	176.1	0.0057	0.1509	6.629	0.0009	1167
38	202.5	0.0049	0.1507	6.634	0.0007	1344
39	232.9	0.0043	0.1506	6.638	0.0006	1546
40	267.9	0.0037	0.1506	6.642	0.0006	1779

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 16. Discrete Discount Factors^a for $i = 16\%$

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.160	0.8621	1.160	0.8621	1.000	1.000
2	1.346	0.7432	0.6230	1.605	0.4630	2.160
3	1.561	0.6407	0.4453	2.246	0.2853	3.506
4	1.811	0.5523	0.3574	2.798	0.1974	5.066
5	2.100	0.4761	0.3054	3.274	0.1454	6.877
6	2.436	0.4104	0.2714	3.685	0.1114	8.977
7	2.826	0.3538	0.2476	4.039	0.0876	11.41
8	3.278	0.3050	0.2302	4.344	0.0702	14.24
9	3.803	0.2630	0.2171	4.607	0.0571	17.52
10	4.411	0.2267	0.2069	4.833	0.0469	21.32
11	5.117	0.1954	0.1989	5.029	0.0389	25.73
12	5.936	0.1685	0.1924	5.197	0.0324	30.85
13	6.886	0.1452	0.1872	5.342	0.0272	36.79
14	7.988	0.1252	0.1829	5.468	0.0229	43.67
15	9.266	0.1079	0.1794	5.575	0.0194	51.66
16	10.75	0.0930	0.1764	5.668	0.0164	60.92
17	12.47	0.0802	0.1740	5.749	0.0140	71.67
18	14.46	0.0691	0.1719	5.818	0.0119	84.14
19	16.78	0.0596	0.1701	5.877	0.0101	98.60
20	19.46	0.0514	0.1687	5.929	0.0087	115.4
21	22.57	0.0443	0.1674	5.973	0.0074	134.8
22	26.19	0.0382	0.1664	6.011	0.0064	157.4
23	30.38	0.0329	0.1654	6.044	0.0054	183.6
24	35.24	0.0284	0.1647	6.073	0.0047	214.0
25	40.87	0.0245	0.1640	6.097	0.0040	249.2
26	47.41	0.0211	0.1634	6.118	0.0034	290.1
27	55.00	0.0182	0.1630	6.136	0.0030	337.5
28	63.80	0.0157	0.1625	6.152	0.0025	392.5
29	74.01	0.0135	0.1622	6.166	0.0022	456.3
30	85.85	0.0116	0.1619	6.177	0.0019	530.3
31	99.59	0.0100	0.1616	6.187	0.0016	616.2
32	115.5	0.0087	0.1614	6.196	0.0014	715.7
33	134.0	0.0075	0.1612	6.203	0.0012	831.3
34	155.4	0.0064	0.1610	6.210	0.0010	965.3
35	180.3	0.0055	0.1609	6.215	0.0009	1121
36	209.2	0.0048	0.1608	6.220	0.0008	1301
37	242.6	0.0041	0.1607	6.224	0.0007	1510
38	281.5	0.0036	0.1606	6.228	0.0006	1753
39	326.5	0.0031	0.1605	6.231	0.0005	2034
40	378.7	0.0026	0.1604	6.233	0.0004	2361

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 17. Discrete Discount Factors^a for $i = 17\%$

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given:	P	F	P	A	F	A
To find:	F	P	A	P	A	F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.170	0.8547	1.170	0.8547	1.000	1.000
2	1.369	0.7305	0.6308	1.585	0.4608	2.170
3	1.602	0.6244	0.4526	2.210	0.2826	3.539
4	1.874	0.5337	0.3645	2.743	0.1945	5.141
5	2.192	0.4561	0.3126	3.199	0.1426	7.014
6	2.565	0.3898	0.2786	3.589	0.1086	9.207
7	3.001	0.3332	0.2549	3.922	0.0849	11.77
8	3.511	0.2848	0.2377	4.207	0.0677	14.77
9	4.108	0.2434	0.2247	4.451	0.0547	18.28
10	4.807	0.2080	0.2147	4.659	0.0447	22.39
11	5.624	0.1778	0.2068	4.836	0.0368	27.20
12	6.580	0.1520	0.2005	4.988	0.0305	32.82
13	7.699	0.1299	0.1954	5.118	0.0254	39.40
14	9.007	0.1110	0.1912	5.229	0.0212	47.10
15	10.54	0.0949	0.1878	5.324	0.0178	56.11
16	12.33	0.0811	0.1850	5.405	0.0150	66.65
17	14.43	0.0693	0.1827	5.475	0.0127	78.98
18	16.88	0.0592	0.1807	5.534	0.0107	93.41
19	19.75	0.0506	0.1791	5.584	0.0091	110.3
20	23.11	0.0433	0.1777	5.628	0.0077	130.0
21	27.03	0.0370	0.1765	5.665	0.0065	153.1
22	31.63	0.0316	0.1756	5.696	0.0056	180.2
23	37.01	0.0270	0.1747	5.723	0.0047	211.8
24	43.30	0.0231	0.1740	5.746	0.0040	248.8
25	50.66	0.0197	0.1734	5.766	0.0034	292.1
26	59.27	0.0169	0.1729	5.783	0.0029	342.8
27	69.35	0.0144	0.1725	5.798	0.0025	402.0
28	81.13	0.0123	0.1721	5.810	0.0021	471.4
29	94.93	0.0105	0.1718	5.820	0.0018	552.5
30	111.1	0.0090	0.1715	5.829	0.0015	647.4
31	129.9	0.0077	0.1713	5.837	0.0013	758.5
32	152.0	0.0066	0.1711	5.844	0.0011	888.4
33	177.9	0.0056	0.1710	5.849	0.0010	1040
34	208.1	0.0048	0.1708	5.854	0.0008	1218
35	243.5	0.0041	0.1707	5.858	0.0007	1426
36	284.9	0.0035	0.1706	5.862	0.0006	1670
37	333.3	0.0030	0.1705	5.865	0.0005	1955
38	390.0	0.0026	0.1704	5.867	0.0004	2288
39	456.3	0.0022	0.1704	5.869	0.0004	2678
40	533.9	0.0019	0.1703	5.871	0.0003	3135

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 18. Discrete Discount Factors^a for $i = 18\%$

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
1	1.180	0.8475	1.180	0.8475	1.000	1.000
2	1.392	0.7182	0.6387	1.566	0.4587	2.180
3	1.643	0.6086	0.4599	2.174	0.2799	3.572
4	1.939	0.5158	0.3717	2.690	0.1917	5.215
5	2.288	0.4371	0.3198	3.127	0.1398	7.154
6	2.700	0.3704	0.2859	3.498	0.1059	9.442
7	3.185	0.3139	0.2624	3.812	0.0824	12.14
8	3.759	0.2660	0.2452	4.078	0.0652	15.33
9	4.435	0.2255	0.2324	4.303	0.0524	19.09
10	5.234	0.1911	0.2225	4.494	0.0425	23.52
11	6.176	0.1619	0.2148	4.656	0.0348	28.76
12	7.288	0.1372	0.2086	4.793	0.0286	34.93
13	8.599	0.1163	0.2037	4.910	0.0237	42.22
14	10.15	0.0985	0.1997	5.008	0.0197	50.82
15	11.97	0.0835	0.1964	5.092	0.0164	60.97
16	14.13	0.0708	0.1937	5.162	0.0137	72.94
17	16.67	0.0600	0.1915	5.222	0.0115	87.07
18	19.67	0.0508	0.1896	5.273	0.0096	103.7
19	23.21	0.0431	0.1881	5.316	0.0081	123.4
20	27.39	0.0365	0.1868	5.353	0.0068	146.6
21	32.32	0.0309	0.1857	5.384	0.0057	174.0
22	38.14	0.0262	0.1848	5.410	0.0048	206.3
23	45.01	0.0222	0.1841	5.432	0.0041	244.5
24	53.11	0.0188	0.1835	5.451	0.0035	289.5
25	62.67	0.0160	0.1829	5.467	0.0029	342.6
26	73.95	0.0135	0.1825	5.480	0.0025	405.3
27	87.26	0.0115	0.1821	5.492	0.0021	479.2
28	103.0	0.0097	0.1818	5.502	0.0018	566.5
29	121.5	0.0082	0.1815	5.510	0.0015	669.4
30	143.4	0.0070	0.1813	5.517	0.0013	790.9
31	169.2	0.0059	0.1811	5.523	0.0011	934.3
32	199.6	0.0050	0.1809	5.528	0.0009	1103
33	235.6	0.0042	0.1808	5.532	0.0008	1303
34	278.0	0.0036	0.1806	5.536	0.0006	1539
35	328.0	0.0030	0.1806	5.539	0.0006	1817
36	387.0	0.0026	0.1805	5.541	0.0005	2145
37	456.7	0.0022	0.1804	5.543	0.0004	2532
38	538.9	0.0019	0.1803	5.545	0.0003	2988
39	635.9	0.0016	0.1803	5.547	0.0003	3527
40	750.4	0.0013	0.1802	5.548	0.0002	4163

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 19. Discrete Discount Factors^a for i = 19%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given:	P	F	P	A	F	A
To find:	F	P	A	P	A	F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.190	0.8403	1.190	0.8403	1.000	1.000
2	1.416	0.7062	0.6466	1.547	0.4566	2.190
3	1.685	0.5934	0.4673	2.140	0.2773	3.606
4	2.005	0.4987	0.3790	2.639	0.1890	5.291
5	2.386	0.4190	0.3271	3.058	0.1371	7.297
6	2.840	0.3521	0.2933	3.410	0.1033	9.683
7	3.379	0.2959	0.2699	3.706	0.0799	12.52
8	4.021	0.2487	0.2529	3.954	0.0629	15.90
9	4.785	0.2090	0.2402	4.163	0.0502	19.92
10	5.695	0.1756	0.2305	4.339	0.0405	24.71
11	6.777	0.1476	0.2229	4.487	0.0329	30.40
12	8.064	0.1240	0.2169	4.611	0.0269	37.18
13	9.596	0.1042	0.2121	4.715	0.0221	45.24
14	11.42	0.0876	0.2082	4.802	0.0182	54.84
15	13.59	0.0736	0.2051	4.876	0.0151	66.26
16	16.17	0.0618	0.2025	4.938	0.0125	79.85
17	19.24	0.0520	0.2004	4.990	0.0104	96.02
18	22.90	0.0437	0.1987	5.033	0.0087	115.3
19	27.25	0.0367	0.1972	5.070	0.0072	138.2
20	32.43	0.0308	0.1960	5.101	0.0060	165.4
21	38.59	0.0259	0.1951	5.127	0.0051	197.8
22	45.92	0.0218	0.1942	5.149	0.0042	236.4
23	54.65	0.0183	0.1935	5.167	0.0035	282.4
24	65.03	0.0154	0.1930	5.182	0.0030	337.0
25	77.39	0.0129	0.1925	5.195	0.0025	402.0
26	92.09	0.0109	0.1921	5.206	0.0021	479.4
27	109.6	0.0091	0.1917	5.215	0.0017	571.5
28	130.4	0.0077	0.1915	5.223	0.0015	681.1
29	155.2	0.0064	0.1912	5.229	0.0012	811.5
30	184.7	0.0054	0.1910	5.235	0.0010	966.7
31	219.8	0.0046	0.1909	5.239	0.0009	1151
32	261.5	0.0038	0.1907	5.243	0.0007	1371
33	311.2	0.0032	0.1906	5.246	0.0006	1633
34	370.3	0.0027	0.1905	5.249	0.0005	1944
35	440.7	0.0023	0.1904	5.251	0.0004	2314
36	524.4	0.0019	0.1904	5.253	0.0004	2755
37	624.1	0.0016	0.1903	5.255	0.0003	3279
38	742.7	0.0013	0.1903	5.256	0.0003	3903
39	883.8	0.0011	0.1902	5.257	0.0002	4646
40	1052	0.0010	0.1902	5.258	0.0002	5530

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 20. Discrete Discount Factors^a for $i = 20\%$

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given:	P	F	P	A	F	A
To find:	F	P	A	P	A	F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.200	0.8333	1.200	0.8333	1.000	1.000
2	1.440	0.6944	0.6545	1.528	0.4545	2.200
3	1.728	0.5787	0.4747	2.106	0.2747	3.640
4	2.074	0.4823	0.3863	2.589	0.1863	5.368
5	2.488	0.4019	0.3344	2.991	0.1344	7.442
6	2.986	0.3349	0.3007	3.326	0.1007	9.930
7	3.583	0.2791	0.2774	3.605	0.0774	12.92
8	4.300	0.2326	0.2606	3.837	0.0606	16.50
9	5.160	0.1938	0.2481	4.031	0.0481	20.80
10	6.192	0.1615	0.2385	4.192	0.0385	25.96
11	7.430	0.1346	0.2311	4.327	0.0311	32.15
12	8.916	0.1122	0.2253	4.439	0.0253	39.58
13	10.70	0.0935	0.2206	4.533	0.0206	48.50
14	12.84	0.0779	0.2169	4.611	0.0169	59.20
15	15.41	0.0649	0.2139	4.675	0.0139	72.04
16	18.49	0.0541	0.2114	4.730	0.0114	87.44
17	22.19	0.0451	0.2094	4.775	0.0094	105.9
18	26.62	0.0376	0.2078	4.812	0.0078	128.1
19	31.95	0.0313	0.2065	4.843	0.0065	154.7
20	38.34	0.0261	0.2054	4.870	0.0054	186.7
21	46.01	0.0217	0.2044	4.891	0.0044	225.0
22	55.21	0.0181	0.2037	4.909	0.0037	271.0
23	66.25	0.0151	0.2031	4.925	0.0031	326.2
24	79.50	0.0126	0.2025	4.937	0.0025	392.5
25	95.40	0.0105	0.2021	4.948	0.0021	472.0
26	114.5	0.0087	0.2018	4.956	0.0018	567.4
27	137.4	0.0073	0.2015	4.964	0.0015	681.9
28	164.8	0.0061	0.2012	4.970	0.0012	819.2
29	197.8	0.0051	0.2010	4.975	0.0010	984.1
30	237.4	0.0042	0.2008	4.979	0.0008	1182
31	284.9	0.0035	0.2007	4.982	0.0007	1419
32	341.8	0.0029	0.2006	4.985	0.0006	1704
33	410.2	0.0024	0.2005	4.988	0.0005	2046
34	492.2	0.0020	0.2004	4.990	0.0004	2456
35	590.7	0.0017	0.2003	4.992	0.0003	2948
36	708.8	0.0014	0.2003	4.993	0.0003	3539
37	850.6	0.0012	0.2002	4.994	0.0002	4248
38	1021	0.0010	0.2002	4.995	0.0002	5098
39	1225	0.0008	0.2002	4.996	0.0002	6119
40	1470	0.0007	0.2001	4.997	0.0001	7344

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 21. Discrete Discount Factors^a for $i = 21\%$

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.210	0.8264	1.210	0.8264	1.000	1.000
2	1.464	0.6830	0.6625	1.509	0.4525	2.210
3	1.772	0.5645	0.4822	2.074	0.2722	3.674
4	2.144	0.4665	0.3936	2.540	0.1836	5.446
5	2.594	0.3855	0.3418	2.926	0.1318	7.589
6	3.138	0.3186	0.3082	3.245	0.0982	10.18
7	3.797	0.2633	0.2851	3.508	0.0751	13.32
8	4.595	0.2176	0.2684	3.726	0.0584	17.12
9	5.560	0.1799	0.2561	3.905	0.0461	21.71
10	6.728	0.1486	0.2467	4.054	0.0367	27.27
11	8.140	0.1228	0.2394	4.177	0.0294	34.00
12	9.850	0.1015	0.2337	4.278	0.0237	42.14
13	11.92	0.0839	0.2292	4.362	0.0192	51.99
14	14.42	0.0693	0.2256	4.432	0.0156	63.91
15	17.45	0.0573	0.2228	4.489	0.0128	78.33
16	21.11	0.0474	0.2204	4.536	0.0104	95.78
17	25.55	0.0391	0.2186	4.576	0.0086	116.9
18	30.91	0.0323	0.2170	4.608	0.0070	142.4
19	37.40	0.0267	0.2158	4.635	0.0058	173.4
20	45.26	0.0221	0.2147	4.657	0.0047	210.8
21	54.76	0.0183	0.2139	4.675	0.0039	256.0
22	66.26	0.0151	0.2132	4.690	0.0032	310.8
23	80.18	0.0125	0.2127	4.703	0.0027	377.0
24	97.02	0.0103	0.2122	4.713	0.0022	457.2
25	117.4	0.0085	0.2118	4.721	0.0018	554.2
26	142.0	0.0070	0.2115	4.728	0.0015	671.6
27	171.9	0.0058	0.2112	4.734	0.0012	813.7
28	208.0	0.0048	0.2110	4.739	0.0010	985.5
29	251.6	0.0040	0.2108	4.743	0.0008	1194
30	304.5	0.0033	0.2107	4.746	0.0007	1445
31	368.4	0.0027	0.2106	4.749	0.0006	1750
32	445.8	0.0022	0.2105	4.751	0.0005	2118
33	539.4	0.0019	0.2104	4.753	0.0004	2564
34	652.7	0.0015	0.2103	4.755	0.0003	3103
35	789.7	0.0013	0.2103	4.756	0.0003	3756
36	955.6	0.0010	0.2102	4.757	0.0002	4546
37	1156	0.0009	0.2102	4.758	0.0002	5501
38	1399	0.0007	0.2102	4.759	0.0002	6658
39	1693	0.0006	0.2101	4.759	0.0001	8057
40	2048	0.0005	0.2101	4.760	0.0001	9750

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 22. Discrete Discount Factors^a for $i = 22\%$

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given:	P	F	P	A	F	A
To find:	F	P	A	P	A	F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.220	0.8197	1.220	0.8197	1.000	1.000
2	1.488	0.6719	0.6705	1.492	0.4505	2.220
3	1.816	0.5507	0.4897	2.042	0.2697	3.708
4	2.215	0.4514	0.4010	2.494	0.1810	5.524
5	2.703	0.3700	0.3492	2.864	0.1292	7.740
6	3.297	0.3033	0.3158	3.167	0.0958	10.44
7	4.023	0.2486	0.2928	3.416	0.0728	13.74
8	4.908	0.2038	0.2763	3.619	0.0563	17.76
9	5.987	0.1670	0.2641	3.786	0.0441	22.67
10	7.305	0.1369	0.2549	3.923	0.0349	28.66
11	8.912	0.1122	0.2478	4.035	0.0278	35.96
12	10.87	0.0920	0.2423	4.127	0.0223	44.87
13	13.26	0.0754	0.2379	4.203	0.0179	55.75
14	16.18	0.0618	0.2345	4.265	0.0145	69.01
15	19.74	0.0507	0.2317	4.315	0.0117	85.19
16	24.09	0.0415	0.2295	4.357	0.0095	104.9
17	29.38	0.0340	0.2278	4.391	0.0078	129.0
18	35.85	0.0279	0.2263	4.419	0.0063	158.4
19	43.74	0.0229	0.2251	4.442	0.0051	194.3
20	53.36	0.0187	0.2242	4.460	0.0042	238.0
21	65.10	0.0154	0.2234	4.476	0.0034	291.3
22	79.42	0.0126	0.2228	4.488	0.0028	356.4
23	96.89	0.0103	0.2223	4.499	0.0023	435.9
24	118.2	0.0085	0.2219	4.507	0.0019	532.8
25	144.2	0.0069	0.2215	4.514	0.0015	651.0
26	175.9	0.0057	0.2213	4.520	0.0013	795.2
27	214.6	0.0047	0.2210	4.524	0.0010	971.1
28	261.9	0.0038	0.2208	4.528	0.0008	1186
29	319.5	0.0031	0.2207	4.531	0.0007	1448
30	389.8	0.0026	0.2206	4.534	0.0006	1767
31	475.5	0.0021	0.2205	4.536	0.0005	2157
32	580.1	0.0017	0.2204	4.538	0.0004	2632
33	707.7	0.0014	0.2203	4.539	0.0003	3212
34	863.4	0.0012	0.2203	4.540	0.0003	3920
35	1053	0.0009	0.2202	4.541	0.0002	4784
36	1285	0.0008	0.2202	4.542	0.0002	5837
37	1568	0.0006	0.2201	4.543	0.0001	7122
38	1913	0.0005	0.2201	4.543	0.0001	8690
39	2334	0.0004	0.2201	4.544	0.0001	10603
40	2847	0.0004	0.2201	4.544	0.0001	12937

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 23. Discrete Discount Factors^a for $i = 23\%$

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given:	P	F	P	A	F	A
To find:	F	P	A	P	A	F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.230	0.8130	1.230	0.8130	1.000	1.000
2	1.513	0.6610	0.6784	1.474	0.4484	2.230
3	1.861	0.5374	0.4972	2.011	0.2672	3.743
4	2.289	0.4369	0.4085	2.448	0.1785	5.604
5	2.815	0.3552	0.3567	2.803	0.1267	7.893
6	3.463	0.2888	0.3234	3.092	0.0934	10.71
7	4.259	0.2348	0.3006	3.327	0.0706	14.17
8	5.239	0.1909	0.2843	3.518	0.0543	18.43
9	6.444	0.1552	0.2722	3.673	0.0422	23.67
10	7.926	0.1262	0.2632	3.799	0.0332	30.11
11	9.749	0.1026	0.2563	3.902	0.0263	38.04
12	11.99	0.0834	0.2509	3.985	0.0209	47.79
13	14.75	0.0678	0.2467	4.053	0.0167	59.78
14	18.14	0.0551	0.2434	4.108	0.0134	74.53
15	22.31	0.0448	0.2408	4.153	0.0108	92.67
16	27.45	0.0364	0.2387	4.189	0.0087	115.0
17	33.76	0.0296	0.2370	4.219	0.0070	142.4
18	41.52	0.0241	0.2357	4.243	0.0057	176.2
19	51.07	0.0196	0.2346	4.263	0.0046	217.7
20	62.82	0.0159	0.2337	4.279	0.0037	268.8
21	77.27	0.0129	0.2330	4.292	0.0030	331.6
22	95.04	0.0105	0.2324	4.302	0.0024	408.9
23	116.9	0.0086	0.2320	4.311	0.0020	503.9
24	143.8	0.0070	0.2316	4.318	0.0016	620.8
25	176.9	0.0057	0.2313	4.323	0.0013	764.6
26	217.5	0.0046	0.2311	4.328	0.0011	941.5
27	267.6	0.0037	0.2309	4.332	0.0009	1159
28	329.1	0.0030	0.2307	4.335	0.0007	1427
29	404.8	0.0025	0.2306	4.337	0.0006	1756
30	497.9	0.0020	0.2305	4.339	0.0005	2160
31	612.4	0.0016	0.2304	4.341	0.0004	2658
32	753.3	0.0013	0.2303	4.342	0.0003	3271
33	926.6	0.0011	0.2302	4.343	0.0002	4024
34	1140	0.0009	0.2302	4.344	0.0002	4951
35	1402	0.0007	0.2302	4.345	0.0002	6090
36	1724	0.0006	0.2301	4.345	0.0001	7492
37	2121	0.0005	0.2301	4.346	0.0001	9216
38	2609	0.0004	0.2301	4.346	0.0001	11337
39	3208	0.0003	0.2301	4.346	0.0001	13946
40	3946	0.0003	0.2301	4.347	0.0001	17154

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 24. Discrete Discount Factors^a for i = 24%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.240	0.8065	1.240	0.8065	1.000	1.000
2	1.538	0.6504	0.6864	1.457	0.4464	2.240
3	1.907	0.5245	0.5047	1.981	0.2647	3.778
4	2.364	0.4230	0.4159	2.404	0.1759	5.684
5	2.932	0.3411	0.3642	2.745	0.1242	8.048
6	3.635	0.2751	0.3311	3.020	0.0911	10.98
7	4.508	0.2218	0.3084	3.242	0.0684	14.62
8	5.590	0.1789	0.2923	3.421	0.0523	19.12
9	6.931	0.1443	0.2805	3.566	0.0405	24.71
10	8.594	0.1164	0.2716	3.682	0.0316	31.64
11	10.66	0.0938	0.2649	3.776	0.0249	40.24
12	13.21	0.0757	0.2596	3.851	0.0196	50.89
13	16.39	0.0610	0.2556	3.912	0.0156	64.11
14	20.32	0.0492	0.2524	3.962	0.0124	80.50
15	25.20	0.0397	0.2499	4.001	0.0099	100.8
16	31.24	0.0320	0.2479	4.033	0.0079	126.0
17	38.74	0.0258	0.2464	4.059	0.0064	157.3
18	48.04	0.0208	0.2451	4.080	0.0051	196.0
19	59.57	0.0168	0.2441	4.097	0.0041	244.0
20	73.86	0.0135	0.2433	4.110	0.0033	303.6
21	91.59	0.0109	0.2426	4.121	0.0026	377.5
22	113.6	0.0088	0.2421	4.130	0.0021	469.1
23	140.8	0.0071	0.2417	4.137	0.0017	582.6
24	174.6	0.0057	0.2414	4.143	0.0014	723.5
25	216.5	0.0046	0.2411	4.147	0.0011	898.1
26	268.5	0.0037	0.2409	4.151	0.0009	1115
27	333.0	0.0030	0.2407	4.154	0.0007	1383
28	412.9	0.0024	0.2406	4.157	0.0006	1716
29	512.0	0.0020	0.2405	4.159	0.0005	2129
30	634.8	0.0016	0.2404	4.160	0.0004	2641
31	787.2	0.0013	0.2403	4.161	0.0003	3276
32	976.1	0.0010	0.2402	4.162	0.0002	4063
33	1210	0.0008	0.2402	4.163	0.0002	5039
34	1501	0.0007	0.2402	4.164	0.0002	6249
35	1861	0.0005	0.2401	4.164	0.0001	7750
36	2308	0.0004	0.2401	4.165	0.0001	9611
37	2862	0.0003	0.2401	4.165	0.0001	11919
38	3548	0.0003	0.2401	4.165	0.0001	14781
39	4400	0.0002	0.2401	4.166	0.0001	18329
40	5456	0.0002	0.2400	4.166	0.0000	22729

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table 25. Discrete Discount Factors^a for i = 25%

Factor Name	Single Compound Amount (SCA)	Single Present Value (SPV)	Uniform Capital Recovery (UCR)	Uniform Present Value (UPV)	Uniform Sinking Fund (USF)	Uniform Compound Amount (UCA)
Formula	$(1+i)^n$	$\frac{1}{(1+i)^n}$	$\frac{i(1+i)^n}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i(1+i)^n}$	$\frac{i}{(1+i)^n - 1}$	$\frac{(1+i)^n - 1}{i}$
Given: To find:	P F	F P	P A	A P	F A	A F

n	SCA	SPV	UCR	UPV	USF	UCA
1	1.250	0.8000	1.250	0.8000	1.000	1.000
2	1.563	0.6400	0.6944	1.440	0.4444	2.250
3	1.953	0.5120	0.5123	1.952	0.2623	3.813
4	2.441	0.4096	0.4234	2.362	0.1734	5.766
5	3.052	0.3277	0.3718	2.689	0.1218	8.207
6	3.815	0.2621	0.3388	2.951	0.0888	11.26
7	4.768	0.2097	0.3163	3.161	0.0663	15.07
8	5.960	0.1678	0.3004	3.329	0.0504	19.84
9	7.451	0.1342	0.2888	3.463	0.0388	25.80
10	9.313	0.1074	0.2801	3.571	0.0301	33.25
11	11.64	0.0859	0.2735	3.656	0.0235	42.57
12	14.55	0.0687	0.2684	3.725	0.0184	54.21
13	18.19	0.0550	0.2645	3.780	0.0145	68.76
14	22.74	0.0440	0.2615	3.824	0.0115	86.95
15	28.42	0.0352	0.2591	3.859	0.0091	109.7
16	35.53	0.0281	0.2572	3.887	0.0072	138.1
17	44.41	0.0225	0.2558	3.910	0.0058	173.6
18	55.51	0.0180	0.2546	3.928	0.0046	218.0
19	69.39	0.0144	0.2537	3.942	0.0037	273.6
20	86.74	0.0115	0.2529	3.954	0.0029	342.9
21	108.4	0.0092	0.2523	3.963	0.0023	429.7
22	135.5	0.0074	0.2519	3.970	0.0019	538.1
23	169.4	0.0059	0.2515	3.976	0.0015	673.6
24	211.8	0.0047	0.2512	3.981	0.0012	843.0
25	264.7	0.0038	0.2509	3.985	0.0009	1055
26	330.9	0.0030	0.2508	3.988	0.0008	1319
27	413.6	0.0024	0.2506	3.990	0.0006	1650
28	517.0	0.0019	0.2505	3.992	0.0005	2064
29	646.2	0.0015	0.2504	3.994	0.0004	2581
30	807.8	0.0012	0.2503	3.995	0.0003	3227
31	1010	0.0010	0.2502	3.996	0.0002	4035
32	1262	0.0008	0.2502	3.997	0.0002	5045
33	1578	0.0006	0.2502	3.997	0.0002	6307
34	1972	0.0005	0.2501	3.998	0.0001	7885
35	2465	0.0004	0.2501	3.998	0.0001	9857
36	3081	0.0003	0.2501	3.999	0.0001	12322
37	3852	0.0003	0.2501	3.999	0.0001	15403
38	4815	0.0002	0.2501	3.999	0.0001	19255
39	6019	0.0002	0.2500	3.999	0.0000	24070
40	7523	0.0001	0.2500	3.999	0.0000	30089

^a All formulas assume end-of-period payments.

P = present sum of money; F = future sum of money equivalent to P at the end of n periods of time at interest or discount rate i; A = end-of-period payment in a uniform series of payments over n periods at i interest or discount rate.

Table U-1
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 1%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	1.000	1.010	1.020	1.030	1.040	1.050	1.059	1.069	1.079	1.089	1.109	1.129	1.149	1.168	1.188					
2	2.000	2.030	2.060	2.090	2.120	2.151	2.182	2.213	2.244	2.275	2.339	2.403	2.468	2.533	2.600					
3	3.000	3.060	3.120	3.182	3.244	3.307	3.371	3.435	3.501	3.567	3.702	3.841	3.983	4.128	4.277					
4	4.000	4.100	4.202	4.306	4.412	4.520	4.630	4.743	4.857	4.974	5.214	5.464	5.723	5.991	6.270					
5	5.000	5.150	5.305	5.464	5.626	5.793	5.965	6.141	6.321	6.506	6.891	7.296	7.721	8.168	8.637					
6	6.000	6.211	6.430	6.656	6.889	7.130	7.379	7.636	7.901	8.175	8.751	9.363	10.02	10.71	11.45					
7	7.000	7.283	7.577	7.883	8.201	8.532	8.876	9.234	9.606	9.993	10.81	11.70	12.65	13.68	14.79					
8	8.000	8.365	8.747	9.147	9.566	10.00	10.46	10.94	11.45	11.97	13.10	14.33	15.68	17.15	18.76					
9	9.000	9.457	9.940	10.45	10.98	11.55	12.14	12.77	13.43	14.13	15.63	17.31	19.16	21.21	23.48					
10	10.00	10.56	11.16	11.79	12.46	13.17	13.92	14.73	15.58	16.48	18.45	20.66	23.15	25.85	29.09					
11	11.00	11.68	12.40	13.17	13.99	14.87	15.81	16.82	17.89	19.03	21.56	24.45	27.74	31.48	35.75					
12	12.00	12.80	13.66	14.59	15.59	16.66	17.81	19.05	20.38	21.82	25.02	28.72	33.01	37.95	43.66					
13	13.00	13.94	14.95	16.05	17.24	18.53	19.93	21.44	23.08	24.85	28.86	33.55	39.06	45.51	53.06					
14	14.00	15.09	16.27	17.56	18.96	20.50	22.17	24.00	25.99	28.16	33.11	39.00	46.00	54.33	64.23					
15	15.00	16.24	17.61	19.11	20.76	22.56	24.55	26.73	29.12	31.75	37.82	45.15	53.98	64.65	77.50					
16	16.00	17.42	18.98	20.71	22.62	24.73	27.07	29.65	32.51	35.67	43.05	52.09	63.15	76.70	93.27					
17	17.00	18.60	20.37	22.35	24.55	27.00	29.73	32.77	36.16	39.94	48.85	58.92	73.68	90.77	112.0					
18	18.00	19.79	21.80	24.05	26.56	29.39	32.56	36.11	40.11	44.59	55.28	68.76	85.77	107.2	134.3					
19	19.00	21.00	23.25	25.79	28.66	31.89	35.55	39.69	44.36	49.65	62.41	78.74	99.66	126.4	160.7					
20	20.00	22.22	24.73	27.58	30.83	34.52	38.72	43.51	48.96	55.16	70.31	90.00	115.6	148.9	192.1					
21	21.00	23.45	26.24	29.43	33.09	37.28	42.08	47.59	53.91	61.17	79.08	102.7	133.9	175.1	229.5					
22	22.00	24.69	27.78	31.34	35.44	40.18	45.64	51.86	59.26	67.71	88.80	117.1	155.0	205.8	273.8					
23	23.00	25.94	29.35	33.30	37.88	43.21	49.41	56.63	65.04	74.83	99.58	133.3	179.1	241.6	326.5					
24	24.00	27.21	30.95	35.32	40.42	46.40	53.41	61.62	71.27	82.59	111.5	151.5	206.9	283.4	389.1					
25	25.00	28.49	32.58	37.40	43.07	49.75	57.64	66.96	77.99	91.04	124.8	172.2	238.7	332.3	463.5					
26	26.00	29.78	34.25	39.54	45.81	53.26	62.12	72.67	85.25	100.2	139.5	195.5	275.4	389.3	551.9					
27	27.00	31.08	35.95	41.74	48.66	56.95	66.87	78.78	93.08	110.3	155.8	221.8	317.4	456.0	656.9					
28	28.00	32.40	37.68	44.01	51.63	60.82	71.91	85.31	101.5	121.2	173.9	251.4	365.7	534.0	781.6					
29	29.00	33.73	39.44	46.35	54.72	64.88	77.24	92.29	110.7	133.1	193.9	284.9	421.1	625.0	929.9					
30	30.00	35.08	41.24	48.75	57.92	69.14	82.88	99.76	120.5	146.0	216.1	322.7	484.8	731.4	1106					
31	31.00	36.43	43.08	51.23	61.26	73.61	88.87	107.7	131.1	160.1	240.8	365.4	558.0	855.7	1315					
32	32.00	37.80	44.95	53.78	64.72	78.30	95.21	116.3	142.6	175.5	268.1	413.5	642.0	1001	1564					
33	33.00	39.19	46.86	56.41	68.32	83.23	101.9	125.4	155.0	192.2	298.4	467.9	738.5	1170	1859					
34	34.00	40.59	48.81	59.11	72.07	88.40	109.0	135.2	168.3	210.4	332.0	529.3	849.3	1369	2210					
35	35.00	42.00	50.80	61.90	75.96	93.82	116.6	145.6	182.7	230.2	369.3	598.5	976.6	1600	2627					
36	36.00	43.42	52.82	64.77	80.01	99.52	124.6	156.8	198.3	251.8	410.6	676.7	1123	1871	3123					
37	37.00	44.86	54.89	67.72	84.22	105.5	133.0	168.7	215.1	275.4	456.5	764.9	1291	2187	3711					
38	38.00	46.32	56.99	70.76	88.59	111.8	142.0	181.5	233.2	301.0	507.3	864.5	1484	2556	4410					
39	39.00	47.79	59.14	73.90	93.14	118.4	151.5	195.1	252.7	328.9	563.7	976.9	1705	2987	5241					
40	40.00	49.27	61.33	77.12	97.87	125.3	161.5	209.7	273.8	359.3	626.2	1104	1959	3491	6228					

^a See page v for an explanation of the proper use of this table.

Table U-2
UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
Discount rate = 2%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9902	1.000	1.010	1.020	1.029	1.039	1.049	1.059	1.069	1.078	1.098	1.118	1.137	1.157	1.176					
2	1.971	2.000	2.029	2.059	2.089	2.119	2.149	2.180	2.211	2.241	2.304	2.367	2.431	2.495	2.561					
3	2.942	3.000	3.059	3.119	3.180	3.242	3.304	3.367	3.431	3.496	3.628	3.763	3.901	4.043	4.189					
4	3.903	4.000	4.099	4.200	4.303	4.408	4.515	4.624	4.735	4.848	5.081	5.323	5.574	5.835	6.105					
5	4.855	5.000	5.149	5.302	5.459	5.620	5.785	5.955	6.129	6.307	6.678	7.067	7.477	7.907	8.358					
6	5.797	6.000	6.209	6.425	6.649	6.880	7.118	7.364	7.618	7.880	8.430	9.016	9.640	10.30	11.01					
7	6.731	7.000	7.280	7.571	7.874	8.189	8.516	8.856	9.209	9.577	10.35	11.19	12.10	13.08	14.13					
8	7.655	8.000	8.361	8.739	9.135	9.549	9.982	10.44	10.91	11.41	12.47	13.63	14.90	16.29	17.80					
9	8.570	9.000	9.453	9.930	10.43	10.96	11.52	12.11	12.73	13.38	14.79	16.35	18.08	20.00	22.12					
10	9.476	10.00	10.56	11.14	11.77	12.43	13.13	13.88	14.67	15.51	17.34	19.39	21.70	24.29	27.20					
11	10.37	12.00	11.67	12.38	13.14	13.96	14.83	15.75	16.74	17.80	20.13	22.79	25.82	29.26	33.17					
12	11.26	12.00	12.79	13.64	14.56	15.54	16.60	17.74	18.96	20.28	23.21	26.59	30.50	35.00	40.20					
13	12.14	13.00	13.93	14.93	16.02	17.19	18.47	19.84	21.33	22.94	26.58	30.84	35.82	41.65	48.47					
14	13.01	14.00	15.07	16.24	17.52	18.91	20.42	22.07	23.86	25.82	30.28	35.58	41.87	49.34	58.20					
15	13.88	15.00	16.23	17.58	19.06	20.69	22.47	24.43	26.57	28.93	34.35	40.88	48.76	58.24	69.65					
16	14.73	16.00	17.40	18.95	20.65	22.54	24.62	26.92	29.46	32.27	38.82	46.81	56.59	68.53	83.12					
17	15.58	17.00	18.58	20.34	22.29	24.46	26.88	29.56	32.55	35.88	43.72	53.44	65.49	80.44	98.96					
18	16.41	18.00	19.77	21.76	23.98	26.46	29.24	32.36	35.86	39.78	49.10	60.84	75.62	94.21	117.6					
19	17.24	19.00	20.98	23.20	25.71	28.54	31.73	35.32	39.39	43.97	55.02	69.12	87.13	110.1	139.5					
20	18.06	20.00	22.19	24.68	27.50	30.70	34.33	38.46	43.16	48.50	61.51	78.37	100.2	128.6	165.3					
21	18.88	21.00	23.42	26.18	29.33	32.94	37.06	41.78	47.19	53.38	68.64	88.70	115.1	149.9	195.7					
22	19.68	22.00	24.66	27.71	31.23	35.27	39.93	45.30	51.50	58.65	76.46	100.3	132.1	174.6	231.4					
23	20.48	23.00	25.91	29.28	33.17	37.69	42.93	49.02	56.10	64.33	85.06	113.2	151.3	203.1	273.4					
24	21.27	24.00	27.17	30.87	35.18	40.21	46.09	52.96	61.02	70.45	94.49	127.6	173.2	236.1	322.8					
25	22.05	25.00	28.45	32.50	37.24	42.82	49.40	57.14	66.27	77.06	104.9	143.7	198.1	274.3	381.0					
26	22.82	26.00	29.74	34.15	39.37	45.54	52.87	61.56	71.89	84.18	116.2	161.8	226.5	318.5	449.4					
27	23.59	27.00	31.04	35.84	41.56	48.37	56.51	66.24	77.89	91.86	128.7	181.9	258.7	369.7	529.9					
28	24.35	28.00	32.36	37.56	43.81	51.30	60.33	71.19	84.31	100.1	142.4	204.4	295.3	428.8	624.6					
29	25.10	29.00	33.68	39.32	46.12	54.36	64.33	76.44	91.16	109.1	157.5	229.6	337.0	497.2	735.9					
30	25.85	30.00	35.02	41.11	48.51	57.53	68.53	82.00	98.48	118.7	174.0	257.7	384.4	576.4	867.0					
31	26.58	31.00	36.38	42.94	50.97	60.82	72.94	87.88	106.3	129.1	192.2	289.2	438.3	667.9	1021					
32	27.31	32.00	37.74	44.80	53.50	64.25	77.57	94.11	114.7	140.3	212.2	324.3	499.6	773.9	1203					
33	28.03	33.00	39.12	46.70	56.10	67.80	82.42	100.7	123.6	152.4	234.0	363.6	569.3	896.4	1416					
34	28.75	34.00	40.51	48.63	58.78	71.50	87.51	107.7	133.2	165.4	258.1	407.4	648.6	1038	1667					
35	29.46	35.00	41.92	50.60	61.54	75.35	92.85	115.1	143.4	179.5	284.5	456.5	738.8	1202	1962					
36	30.16	36.00	43.34	52.62	64.37	79.34	98.45	122.9	154.3	194.6	313.5	511.3	841.3	1392	2310					
37	30.85	37.00	44.78	54.67	67.30	83.49	104.3	131.2	165.9	211.0	345.3	572.6	957.9	1611	2719					
38	31.54	38.00	46.23	56.76	70.31	87.80	110.5	140.0	178.4	228.6	380.3	641.1	1091	1865	3200					
39	32.22	39.00	47.69	58.89	73.40	92.29	116.9	149.3	191.7	247.6	418.6	717.6	1241	2159	3765					
40	32.90	40.00	49.17	61.07	76.59	96.95	123.7	159.1	205.9	268.1	460.8	803.2	1413	2489	4431					

^a See page v for an explanation of the proper use of this table.

Table U-3
UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
Discount rate = 3%

Period	Rate of Price Increase per Period															
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	
1	0.9806	0.9903	1.000	1.010	1.019	1.029	1.039	1.049	1.058	1.068	1.087	1.107	1.126	1.146	1.165	
2	1.942	1.971	2.000	2.029	2.059	2.088	2.118	2.148	2.178	2.209	2.270	2.332	2.395	2.458	2.522	
3	2.885	2.942	3.000	3.059	3.118	3.178	3.239	3.301	3.363	3.427	3.555	3.688	3.823	3.962	4.104	
4	3.810	3.904	4.000	4.098	4.198	4.300	4.404	4.510	4.617	4.727	4.954	5.188	5.432	5.684	5.946	
5	4.716	4.856	5.000	5.148	5.299	5.454	5.614	5.777	5.945	6.117	6.474	6.849	7.244	7.658	8.083	
6	5.605	5.799	6.000	6.207	6.421	6.642	6.870	7.106	7.349	7.600	8.127	8.687	9.284	9.919	10.59	
7	6.477	6.733	7.000	7.277	7.565	7.865	8.176	8.500	8.836	9.185	9.924	10.72	11.58	12.51	13.51	
8	7.332	7.658	8.000	8.358	8.732	9.123	9.532	9.961	10.41	10.88	11.88	12.97	14.17	15.48	16.90	
9	8.170	8.574	9.000	9.448	9.921	10.42	10.94	11.49	12.07	12.68	14.00	15.47	17.08	18.88	20.86	
10	8.992	9.481	10.00	10.55	11.13	11.75	12.41	13.10	13.83	14.61	16.32	18.22	20.37	22.77	25.46	
11	9.798	10.38	11.00	11.66	12.37	13.12	13.93	14.78	15.70	16.68	18.83	21.28	24.06	27.23	30.83	
12	10.59	11.27	12.00	12.78	13.63	14.53	15.51	16.55	17.67	18.88	21.56	24.66	28.23	32.34	37.08	
13	11.36	12.15	13.00	13.92	14.91	15.99	17.15	18.40	19.76	21.23	24.53	28.40	32.92	38.20	44.37	
14	12.12	13.02	14.00	15.06	16.22	17.48	18.85	20.34	21.97	23.74	27.76	32.54	38.20	44.91	52.86	
15	12.87	13.89	15.00	16.22	17.56	19.02	20.62	22.38	24.31	26.42	31.28	37.12	44.14	52.59	62.75	
16	13.60	14.74	16.00	17.39	18.92	20.60	22.46	24.51	26.78	29.28	35.10	42.19	50.84	61.40	74.27	
17	14.32	15.59	17.00	18.57	20.30	22.23	24.37	26.75	29.40	32.34	39.25	47.80	58.39	71.48	87.69	
18	15.02	16.43	18.00	19.76	21.72	23.91	26.36	29.10	32.17	35.61	43.77	54.01	66.88	83.04	103.3	
19	15.71	17.26	19.00	20.96	23.16	25.63	28.42	31.56	35.10	39.09	48.68	60.89	76.45	96.28	121.5	
20	16.38	18.08	20.00	22.17	24.63	27.41	30.56	34.14	38.21	42.82	54.02	68.50	87.22	111.4	142.8	
21	17.05	18.90	21.00	23.39	26.12	29.24	32.79	36.85	41.49	46.80	59.83	76.92	99.36	128.8	167.5	
22	17.69	19.70	22.00	24.63	27.65	31.12	35.10	39.69	44.96	51.05	66.14	86.24	113.0	148.7	196.3	
23	18.33	20.50	23.00	25.88	29.21	33.05	37.50	42.66	48.64	55.58	73.01	96.56	128.4	171.5	229.9	
24	18.96	21.29	24.00	27.14	30.79	35.04	40.00	45.78	52.53	60.43	80.48	108.0	145.7	197.7	269.0	
25	19.57	22.08	25.00	28.41	32.41	37.09	42.59	49.05	56.65	65.60	88.60	120.6	165.3	227.6	314.6	
26	20.17	22.85	26.00	29.70	34.06	39.20	45.28	52.48	61.01	71.13	97.42	134.6	187.3	261.9	367.6	
27	20.76	23.62	27.00	31.00	35.74	41.37	48.08	56.08	65.62	77.03	107.0	150.1	212.0	301.2	429.5	
28	21.34	24.38	28.00	32.31	37.45	43.61	50.99	59.85	70.50	83.33	117.5	167.2	239.9	346.2	501.5	
29	21.90	25.14	29.00	33.63	39.20	45.91	54.01	63.80	75.67	90.07	128.8	186.2	271.3	397.7	585.5	
30	22.46	25.88	30.00	34.97	40.98	48.27	57.14	67.95	81.13	97.25	141.2	207.2	306.7	456.8	683.3	
31	23.00	26.62	31.00	36.32	42.80	50.71	60.40	72.29	86.92	104.9	154.6	230.4	346.5	524.5	797.2	
32	23.54	27.35	32.00	37.68	44.65	53.22	63.78	76.85	93.04	113.1	169.2	256.1	391.4	602.0	929.9	
33	24.06	28.08	33.00	39.06	46.53	55.79	67.30	81.63	99.52	121.9	185.0	284.6	441.9	690.8	1065	
34	24.57	28.79	34.00	40.44	48.46	58.45	70.95	86.64	106.4	131.2	202.3	316.1	498.8	792.5	1265	
35	25.08	29.51	35.00	41.85	50.42	61.18	74.75	91.90	113.6	141.2	221.1	350.9	562.9	909.1	1475	
36	25.57	30.21	36.00	43.26	52.41	63.99	78.69	97.41	121.3	151.9	241.5	389.5	635.0	1043	1719	
37	26.05	30.91	37.00	44.69	54.45	66.88	82.78	103.2	129.4	163.3	263.7	432.2	716.3	1196	2004	
38	26.53	31.60	38.00	46.14	56.53	69.86	87.04	109.2	138.0	175.4	287.8	479.5	807.9	1371	2336	
39	26.99	32.28	39.00	47.59	58.64	72.92	91.46	115.6	147.1	188.4	314.0	531.8	910.9	1572	2723	
40	27.45	32.96	40.00	49.07	60.80	76.08	96.05	122.3	156.8	202.3	342.5	589.7	1027	1802	3173	

^a See page v for an explanation of the proper use of this table.

Table U-4
UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
Discount rate = 4%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9712	0.9808	0.9904	1.000	1.010	1.019	1.029	1.038	1.048	1.058	1.077	1.096	1.115	1.135	1.154					
2	1.914	1.943	1.971	2.000	2.029	2.058	2.087	2.117	2.147	2.176	2.237	2.298	2.359	2.422	2.485					
3	2.830	2.886	2.943	3.000	3.058	3.117	3.176	3.237	3.298	3.360	3.486	3.615	3.747	3.883	4.021					
4	3.720	3.811	3.905	4.000	4.097	4.196	4.297	4.400	4.504	4.611	4.831	5.059	5.295	5.540	5.794					
5	4.584	4.719	4.858	5.000	5.146	5.296	5.450	5.607	5.769	5.935	6.279	6.641	7.021	7.420	7.839					
6	5.423	5.609	5.801	6.000	6.205	6.417	6.636	6.862	7.095	7.335	7.839	8.376	8.947	9.554	10.20					
7	6.237	6.482	6.736	7.000	7.275	7.560	7.856	8.164	8.484	8.816	9.519	10.28	11.09	11.97	12.92					
8	7.028	7.338	7.661	8.000	8.354	8.724	9.112	9.516	9.940	10.38	11.33	12.36	13.49	14.72	16.06					
9	7.797	8.178	8.578	9.000	9.444	9.911	10.40	10.92	11.47	12.04	13.28	14.65	16.16	17.84	19.69					
10	8.543	9.001	9.486	10.00	10.54	11.12	11.73	12.38	13.06	13.79	15.37	17.15	19.14	21.37	23.87					
11	9.268	9.809	10.39	11.00	11.66	12.35	13.10	13.89	14.74	15.64	17.63	19.90	22.47	25.38	28.70					
12	9.972	10.60	11.28	12.00	12.78	13.61	14.51	15.47	16.50	17.60	20.07	22.91	26.17	29.94	34.27					
13	10.66	11.38	12.16	13.00	13.91	14.89	15.95	17.10	18.34	19.68	22.69	26.20	30.31	35.10	40.69					
14	11.32	12.14	13.03	14.00	15.05	16.20	17.44	18.80	20.27	21.87	25.51	29.82	34.92	40.96	48.11					
15	11.96	12.89	13.90	15.00	16.21	17.53	18.97	20.56	22.29	24.19	28.55	33.78	40.07	47.61	56.66					
16	12.59	13.62	14.75	16.00	17.37	18.88	20.55	22.39	24.41	26.64	31.82	38.13	45.80	55.15	66.53					
17	13.20	14.34	15.60	17.00	18.55	20.27	22.17	24.29	26.63	29.24	35.35	42.89	52.21	63.71	77.92					
18	13.79	15.04	16.44	18.00	19.74	21.68	23.84	26.26	28.96	31.98	39.14	48.11	59.34	73.42	91.07					
19	14.36	15.74	17.27	19.00	20.94	23.11	25.56	28.31	31.40	34.89	43.23	53.83	67.31	84.44	106.2					
20	14.92	16.41	18.10	20.00	22.15	24.58	27.32	30.43	33.96	37.96	47.63	60.10	76.19	96.94	123.7					
21	15.46	17.08	18.91	21.00	23.37	26.07	29.14	32.64	36.64	41.20	52.38	66.98	86.10	111.1	143.9					
22	15.98	17.73	19.72	22.00	24.60	27.59	31.01	34.94	39.45	44.64	57.48	74.52	97.15	127.2	167.2					
23	16.49	18.37	20.52	23.00	25.85	29.14	32.93	37.32	42.39	48.27	62.98	82.78	109.5	145.5	194.1					
24	16.99	19.00	21.32	24.00	27.11	30.72	34.91	39.79	45.48	52.11	68.90	91.83	123.2	166.2	225.1					
25	17.47	19.61	22.10	25.00	28.38	32.33	36.95	42.36	48.72	56.18	75.28	101.8	138.5	189.7	260.9					
26	17.94	20.22	22.88	26.00	29.66	33.97	39.04	45.03	52.11	60.48	82.15	112.6	155.7	216.4	302.2					
27	18.39	20.81	23.65	27.00	30.96	35.64	41.20	47.80	55.66	65.02	89.54	124.6	174.7	246.6	349.8					
28	18.83	21.39	24.41	28.00	32.26	37.35	43.42	50.68	59.38	69.83	97.51	137.6	196.0	281.0	404.8					
29	19.26	21.96	25.17	29.00	33.58	39.08	45.70	53.67	63.29	74.92	106.1	152.0	219.7	319.9	468.2					
30	19.68	22.52	25.92	30.00	34.92	40.85	48.04	56.77	67.38	80.30	115.3	167.7	246.2	364.1	541.4					
31	20.08	23.07	26.66	31.00	36.26	42.66	50.46	59.99	71.66	85.99	125.3	184.9	275.7	414.3	625.9					
32	20.47	23.60	27.39	32.00	37.62	44.50	52.94	63.34	76.16	92.01	136.0	203.8	308.7	471.2	723.3					
33	20.85	24.13	28.12	33.00	38.99	46.37	55.50	66.81	80.87	98.37	147.5	224.5	345.4	535.8	835.7					
34	21.22	24.65	28.84	34.00	40.38	48.28	58.13	70.42	85.80	105.1	159.9	247.1	386.4	609.0	965.5					
35	21.58	25.15	29.55	35.00	41.77	50.23	60.83	74.16	90.98	112.2	173.3	272.0	432.0	692.2	1115					
36	21.93	25.65	30.26	36.00	43.19	52.22	63.62	78.06	96.40	119.8	187.7	299.3	483.0	786.5	1288					
37	22.27	26.14	30.96	37.00	44.61	54.24	66.48	82.10	102.1	127.7	203.3	329.1	539.9	893.5	1487					
38	22.60	26.62	31.65	38.00	46.05	56.30	69.43	86.29	108.0	136.2	220.0	361.9	603.3	1015	1717					
39	22.92	27.08	32.34	39.00	47.50	58.40	72.46	90.65	114.3	145.1	238.0	397.8	674.0	1153	1982					
40	23.23	27.54	33.02	40.00	48.97	60.55	75.58	95.17	120.8	154.5	257.3	437.1	752.9	1309	2289					

^a See page v for an explanation of the proper use of this table.

Table U-5
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 5%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9619	0.9714	0.9810	0.9905	1.0000	1.0100	1.0199	1.0299	1.0398	1.0498	1.067	1.086	1.105	1.124	1.143					
2	1.887	1.915	1.943	1.972	2.000	2.029	2.058	2.087	2.116	2.145	2.204	2.264	2.325	2.387	2.449					
3	2.777	2.832	2.887	2.943	3.000	3.057	3.116	3.175	3.234	3.295	3.418	3.544	3.674	3.806	3.942					
4	3.633	3.722	3.813	3.906	4.000	4.096	4.194	4.294	4.396	4.499	4.713	4.934	5.163	5.401	5.648					
5	4.457	4.587	4.721	4.859	5.000	5.145	5.293	5.445	5.601	5.761	6.093	6.442	6.809	7.194	7.597					
6	5.249	5.428	5.612	5.803	6.000	6.203	6.413	6.629	6.853	7.083	7.566	8.080	8.627	9.208	9.826					
7	6.011	6.244	6.487	6.738	7.000	7.272	7.554	7.847	8.152	8.468	9.137	9.859	10.64	11.47	12.37					
8	6.744	7.037	7.344	7.665	8.000	8.351	8.717	9.100	9.501	9.919	10.81	11.79	12.85	14.02	15.28					
9	7.449	7.808	8.185	8.582	9.000	9.440	9.902	10.39	10.90	11.44	12.60	13.89	15.31	16.88	18.61					
10	8.127	8.556	9.010	9.491	10.00	10.54	11.11	11.71	12.35	13.03	14.51	16.16	18.01	20.09	22.41					
11	8.779	9.283	9.819	10.39	11.00	11.65	12.34	13.08	13.86	14.70	16.54	18.63	21.01	23.70	26.75					
12	9.407	9.989	10.61	11.28	12.00	12.77	13.59	14.48	15.43	16.45	18.71	21.32	24.31	27.76	31.72					
13	10.01	10.68	11.39	12.17	13.00	13.90	14.87	15.92	17.05	18.28	21.02	24.23	27.96	32.32	37.39					
14	10.59	11.34	12.16	13.04	14.00	15.04	16.18	17.41	18.74	20.20	23.49	27.39	32.00	37.44	43.88					
15	11.15	11.99	12.91	13.91	15.00	16.20	17.50	18.93	20.49	22.21	26.13	30.82	36.45	43.20	51.29					
16	11.69	12.62	13.64	14.76	16.00	17.36	18.85	20.50	22.31	24.31	28.93	34.55	41.38	49.68	59.76					
17	12.20	13.23	14.36	15.61	17.00	18.53	20.23	22.12	24.20	26.52	31.93	38.60	46.82	56.95	69.44					
18	12.70	13.82	15.07	16.46	18.00	19.72	21.64	23.78	26.16	28.83	35.13	42.99	52.83	65.12	80.50					
19	13.18	14.40	15.76	17.29	19.00	20.92	23.07	25.48	28.20	31.25	38.53	47.76	59.47	74.31	93.14					
20	13.64	14.96	16.44	18.12	20.00	22.13	24.53	27.24	30.31	33.78	42.17	52.94	66.80	84.63	107.6					
21	14.08	15.50	17.11	18.93	21.00	23.35	26.01	29.05	32.50	36.44	46.05	58.57	74.90	96.24	124.1					
22	14.51	16.03	17.77	19.74	22.00	24.58	27.53	30.91	34.78	39.22	50.18	64.67	83.86	109.3	143.0					
23	14.92	16.54	18.41	20.55	23.00	25.82	29.07	32.82	37.14	42.14	54.60	71.30	93.75	123.9	164.5					
24	15.31	17.04	19.04	21.34	24.00	27.08	30.64	34.78	39.59	45.19	59.30	78.50	104.7	140.4	189.2					
25	15.69	17.53	19.66	22.13	25.00	28.34	32.25	36.81	42.14	48.39	64.32	86.31	116.7	158.9	217.4					
26	16.05	18.00	20.26	22.91	26.00	29.62	33.88	38.89	44.78	51.74	69.68	94.80	130.1	179.7	249.6					
27	16.40	18.46	20.86	23.68	27.00	30.92	35.54	41.03	47.53	55.25	75.39	104.0	144.8	203.1	286.4					
28	16.74	18.90	21.44	24.45	28.00	32.22	37.24	43.23	50.38	58.93	81.48	114.0	161.1	229.3	328.4					
29	17.06	19.33	22.02	25.20	29.00	33.54	38.97	45.49	53.33	62.79	87.98	124.9	179.1	258.9	376.5					
30	17.38	19.75	22.58	25.95	30.00	34.86	40.73	47.82	56.40	66.82	94.81	136.7	198.8	292.0	431.4					
31	17.68	20.16	23.13	26.70	31.00	36.21	42.52	50.21	59.59	71.05	102.3	149.5	220.9	329.3	494.2					
32	17.96	20.55	23.67	27.43	32.00	37.56	44.35	52.68	62.90	75.48	110.2	163.4	245.1	371.2	565.9					
33	18.24	20.94	24.20	28.16	33.00	38.93	46.22	55.21	66.33	80.13	118.6	178.4	271.9	418.3	647.9					
34	18.51	21.31	24.72	28.88	34.00	40.31	48.12	57.82	69.90	84.99	127.6	194.8	301.5	471.2	741.6					
35	18.77	21.67	25.23	29.60	35.00	41.70	50.05	60.50	73.60	90.08	137.2	212.6	334.2	530.7	848.7					
36	19.01	22.03	25.73	30.31	36.00	43.11	52.03	63.25	77.44	95.42	147.4	231.9	370.3	597.5	971.0					
37	19.25	22.37	26.22	31.01	37.00	44.53	54.04	66.09	81.43	101.0	158.3	252.9	410.2	672.6	1111					
38	19.48	22.70	26.70	31.71	38.00	45.96	56.08	69.01	85.57	106.9	169.9	275.6	454.3	757.0	1271					
39	19.70	23.02	27.17	32.39	39.00	47.41	58.17	72.01	89.87	113.0	182.3	300.4	503.0	851.8	1453					
40	19.91	23.34	27.64	33.08	40.00	48.87	60.30	75.09	94.33	119.4	195.5	327.2	556.8	958.4	1662					

^a See page v for an explanation of the proper use of this table.

Table U-6
UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
Discount rate = 6%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9528	0.9623	0.9717	0.9811	0.9906	1.0000	1.0099	1.0199	1.0298	1.0398	1.057	1.075	1.094	1.113	1.132					
2	1.861	1.888	1.916	1.944	1.972	2.000	2.028	2.057	2.086	2.115	2.173	2.232	2.292	2.352	2.414					
3	2.726	2.779	2.833	2.888	2.944	3.000	3.057	3.115	3.173	3.232	3.353	3.476	3.602	3.732	3.865					
4	3.550	3.637	3.725	3.815	3.907	4.000	4.095	4.192	4.291	4.392	4.599	4.814	5.037	5.268	5.507					
5	4.335	4.462	4.591	4.724	4.860	5.000	5.143	5.290	5.441	5.595	5.916	6.253	6.606	6.977	7.366					
6	5.084	5.256	5.433	5.616	5.805	6.000	6.201	6.409	6.623	6.844	7.307	7.800	8.324	8.880	9.471					
7	5.797	6.019	6.251	6.491	6.741	7.000	7.269	7.549	7.839	8.140	8.778	9.464	10.20	11.00	11.85					
8	6.476	6.755	7.046	7.350	7.668	8.000	8.347	8.710	9.089	9.485	10.33	11.25	12.26	13.36	14.55					
9	7.124	7.462	7.818	8.192	8.586	9.000	9.436	9.893	10.37	10.88	11.97	13.18	14.51	15.98	17.61					
10	7.740	8.143	8.568	9.019	9.496	10.00	10.53	11.10	11.70	12.33	13.71	15.25	16.97	18.91	21.06					
11	8.328	8.798	9.298	9.830	10.40	11.00	11.64	12.33	13.06	13.83	15.54	17.48	19.67	22.16	24.98					
12	8.888	9.428	10.01	10.63	11.29	12.00	12.76	13.58	14.45	15.39	17.48	19.87	22.62	25.78	29.41					
13	9.422	10.03	10.69	11.41	12.17	13.00	13.89	14.85	15.89	17.01	19.52	22.44	25.85	29.81	34.43					
14	9.930	10.62	11.36	12.17	13.05	14.00	15.03	16.15	17.37	18.69	21.68	25.21	29.38	34.30	40.10					
15	10.41	11.18	12.01	12.92	13.92	15.00	16.18	17.48	18.89	20.43	23.97	28.19	33.25	39.30	46.53					
16	10.88	11.72	12.65	13.66	14.78	16.00	17.35	18.82	20.45	22.24	26.38	31.40	37.48	44.86	53.81					
17	11.32	12.24	13.26	14.38	15.63	17.00	18.52	20.20	22.06	24.12	28.93	34.84	42.11	51.05	62.05					
18	11.73	12.74	13.86	15.09	16.47	18.00	19.70	21.60	23.71	26.07	31.62	38.55	47.18	57.94	71.38					
19	12.13	13.22	14.44	15.79	17.30	19.00	20.90	23.03	25.41	28.09	34.78	42.53	52.72	65.61	81.94					
20	12.51	13.69	15.00	16.47	18.13	20.00	22.11	24.48	27.16	30.19	37.48	46.82	58.79	74.16	93.89					
21	12.88	14.13	15.55	17.14	18.95	21.00	23.32	25.96	28.96	32.36	40.66	51.42	65.43	83.66	107.4					
22	13.22	14.56	16.08	17.80	19.76	22.00	24.55	27.47	30.80	34.62	44.01	56.38	72.70	94.25	122.7					
23	13.55	14.97	16.59	18.45	20.57	23.00	25.79	29.01	32.70	36.97	47.56	61.71	80.65	106.0	140.1					
24	13.87	15.37	17.10	19.08	21.36	24.00	27.05	30.57	34.66	39.40	51.31	67.44	89.35	119.1	159.7					
25	14.16	15.75	17.58	19.70	22.15	25.00	28.31	32.17	36.67	41.92	55.27	73.61	98.87	133.8	181.9					
26	14.45	16.12	18.06	20.31	22.93	26.00	29.59	33.79	38.73	44.54	59.46	80.24	109.3	150.0	207.1					
27	14.72	16.47	18.52	20.91	23.71	27.00	30.88	35.45	40.86	47.26	63.88	87.37	120.7	168.1	235.6					
28	14.98	16.81	18.97	21.49	24.48	28.00	32.18	37.14	43.04	50.08	68.55	95.04	133.2	188.2	267.8					
29	15.22	17.14	19.40	22.07	25.24	29.00	33.49	38.86	45.29	53.01	73.49	103.3	146.8	210.7	304.4					
30	15.46	17.46	19.82	22.64	26.00	30.00	34.82	40.61	47.60	56.05	78.70	112.2	161.8	235.6	345.7					
31	15.68	17.76	20.23	23.19	26.73	31.00	36.15	42.99	49.97	59.20	84.22	121.7	178.1	263.4	392.5					
32	15.90	18.05	20.63	23.73	27.47	32.00	37.50	44.21	52.42	62.47	90.04	132.0	196.0	294.4	445.4					
33	16.10	18.33	21.02	24.27	28.20	33.00	38.87	46.07	54.93	65.87	96.19	143.0	215.6	328.8	505.4					
34	16.28	18.60	21.40	24.79	28.93	34.00	40.24	47.95	57.51	69.39	102.7	154.9	237.1	367.1	573.3					
35	16.48	18.86	21.76	25.30	29.65	35.00	41.63	49.88	60.17	73.05	109.6	167.6	260.5	409.8	650.1					
36	16.65	19.12	22.12	25.81	30.36	36.00	43.03	51.84	62.90	76.84	116.8	181.4	286.2	457.3	737.1					
37	16.82	19.36	22.47	26.30	31.06	37.00	44.45	53.83	65.71	80.78	124.5	196.1	314.3	510.2	835.6					
38	16.98	19.59	22.80	26.79	31.76	38.00	45.88	55.87	68.59	84.87	132.6	212.0	345.0	569.1	947.1					
39	17.13	19.81	23.13	27.26	32.45	39.00	47.32	57.94	71.56	89.11	141.2	229.1	378.7	634.6	1073					
40	17.28	20.03	23.44	27.73	33.13	40.00	48.78	60.05	74.62	93.51	150.2	247.4	415.5	707.5	1216					

^a See page v for an explanation of the proper use of this table.

Table U-7
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 7%

Period	Rate of Price Increase per Period															
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	
1	0.9439	0.9533	0.9626	0.9720	0.9813	0.9907	1.000	1.009	1.019	1.028	1.047	1.065	1.084	1.103	1.121	
2	1.835	1.862	1.889	1.917	1.944	1.972	2.000	2.028	2.056	2.085	2.142	2.201	2.259	2.319	2.379	
3	2.676	2.728	2.781	2.835	2.889	2.944	3.000	3.056	3.114	3.171	3.289	3.410	3.534	3.660	3.790	
4	3.470	3.554	3.640	3.727	3.817	3.907	4.000	4.094	4.190	4.288	4.490	4.698	4.915	5.139	5.372	
5	4.219	4.341	4.466	4.595	4.727	4.862	5.000	5.142	5.287	5.437	5.746	6.071	6.412	6.770	7.146	
6	4.927	5.092	5.262	5.438	5.619	5.807	6.000	6.199	6.405	6.617	7.061	7.534	8.036	8.569	9.136	
7	5.594	5.807	6.028	6.257	6.496	6.743	7.000	7.267	7.543	7.831	8.438	9.092	9.796	10.55	11.37	
8	6.224	6.489	6.765	7.054	7.356	7.671	8.000	8.344	8.703	9.078	9.879	10.75	11.70	12.74	13.87	
9	6.819	7.139	7.475	7.828	8.199	8.590	9.000	9.431	9.884	10.36	11.39	12.52	13.77	15.15	16.68	
10	7.381	7.759	8.158	8.581	9.028	9.500	10.00	10.53	11.09	11.68	12.97	14.41	16.02	17.81	19.82	
11	7.911	8.349	8.816	9.312	9.840	10.40	11.00	11.64	12.31	13.03	14.62	16.41	18.45	20.75	23.35	
12	8.411	8.912	9.449	10.02	10.64	11.30	12.00	12.75	13.56	14.43	16.35	18.55	21.08	23.98	27.31	
13	8.883	9.449	10.06	10.71	11.42	12.18	13.00	13.88	14.83	15.86	18.16	20.83	23.94	27.55	31.75	
14	9.328	9.961	10.64	11.39	12.19	13.06	14.00	15.02	16.13	17.33	20.05	23.26	27.04	31.49	36.73	
15	9.750	10.45	11.21	12.04	12.94	13.93	15.00	16.17	17.45	18.85	22.04	25.85	30.40	35.83	42.32	
16	10.15	10.91	11.75	12.67	13.68	14.79	16.00	17.33	18.80	20.40	24.12	28.60	34.04	40.61	48.58	
17	10.52	11.36	12.28	13.29	14.41	15.64	17.00	18.50	20.17	22.00	26.29	31.54	37.98	45.89	55.60	
18	10.88	11.78	12.78	13.89	15.12	16.48	18.00	19.69	21.56	23.65	28.56	34.67	42.26	51.71	63.48	
19	11.21	12.18	13.26	14.47	15.82	17.32	19.00	20.88	22.98	25.34	30.95	38.00	46.90	58.13	72.31	
20	11.53	12.57	13.73	15.04	16.50	18.15	20.00	22.08	24.43	27.08	33.44	41.55	51.93	65.21	82.22	
21	11.82	12.93	14.18	15.59	17.18	18.97	21.00	23.30	25.81	28.87	36.05	45.34	57.38	73.02	93.33	
22	12.10	13.28	14.61	16.12	17.84	19.78	22.00	24.53	27.41	30.70	38.78	49.37	63.29	81.63	105.8	
23	12.37	13.61	15.03	16.64	18.48	20.59	23.00	25.77	28.94	32.59	41.64	53.66	69.70	91.12	119.8	
24	12.62	13.93	15.43	17.15	19.12	21.39	24.00	27.02	30.50	34.53	44.63	58.24	76.65	101.6	135.4	
25	12.86	14.23	15.82	17.64	19.74	22.18	25.00	28.28	32.09	36.53	47.76	63.12	84.18	113.1	153.0	
26	13.08	14.52	16.19	18.12	20.36	22.96	26.00	29.55	33.71	38.58	51.04	68.31	92.34	125.9	172.7	
27	13.29	14.80	16.55	18.58	20.96	23.74	27.00	30.84	35.36	40.69	54.47	73.85	101.2	139.9	194.8	
28	13.49	15.06	16.89	19.03	21.55	24.51	28.00	32.13	37.04	42.86	58.06	79.74	110.8	155.4	219.6	
29	13.68	15.31	17.22	19.47	22.12	25.27	29.00	33.44	38.75	45.09	61.83	86.02	121.2	172.5	247.4	
30	13.85	15.55	17.54	19.90	22.69	26.02	30.00	34.77	40.49	47.38	65.76	92.72	132.5	191.3	278.6	
31	14.02	15.77	17.85	20.31	23.25	26.77	31.00	36.10	42.27	49.74	69.88	99.85	144.7	212.1	313.6	
32	14.18	15.99	18.14	20.71	23.80	27.51	32.00	37.45	44.07	52.16	74.19	107.4	158.0	235.0	352.8	
33	14.33	16.19	18.43	21.10	24.33	28.24	33.00	38.81	45.92	54.65	78.71	115.5	172.3	250.2	396.8	
34	14.47	16.39	18.70	21.48	24.86	28.97	34.00	40.18	47.79	57.21	83.43	124.2	187.9	288.1	446.1	
35	14.60	16.58	18.96	21.85	25.38	29.69	35.00	41.56	49.71	59.85	88.38	133.4	204.8	318.8	501.5	
36	14.73	16.76	19.22	22.21	25.88	30.40	36.00	42.96	51.65	62.53	93.55	143.1	223.1	352.7	563.5	
37	14.84	16.93	19.46	22.56	26.38	31.11	37.00	44.37	53.64	65.33	98.97	153.6	242.9	390.1	633.1	
38	14.95	17.09	19.70	22.90	26.87	31.81	38.00	45.80	55.66	68.19	104.6	164.7	264.5	431.3	711.1	
39	15.06	17.24	19.92	23.23	27.35	32.50	39.00	47.23	57.72	71.13	110.6	176.5	287.8	476.7	798.6	
40	15.16	17.39	20.14	23.55	27.82	33.19	40.00	48.68	59.82	74.16	116.8	189.1	313.1	526.8	896.8	

^a See page v for an explanation of the proper use of this table.

Table U-8
UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
Discount rate = 8%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9352	0.9444	0.9537	0.9630	0.9722	0.9815	0.9907	1.0000	1.0099	1.0199	1.0307	1.056	1.074	1.093	1.111					
2	1.810	1.836	1.863	1.890	1.917	1.945	1.972	2.000	2.028	2.056	2.112	2.170	2.228	2.286	2.346					
3	2.628	2.679	2.731	2.783	2.836	2.890	2.945	3.000	3.056	3.112	3.228	3.346	3.467	3.591	3.717					
4	3.393	3.474	3.558	3.643	3.730	3.818	3.908	4.000	4.093	4.189	4.384	4.587	4.798	5.016	5.242					
5	4.108	4.226	4.347	4.471	4.598	4.729	4.863	5.000	5.141	5.285	5.584	5.898	6.227	6.573	6.935					
6	4.777	4.936	5.099	5.269	5.443	5.623	5.809	6.000	6.197	6.401	6.828	7.281	7.762	8.274	8.817					
7	5.402	5.606	5.817	6.036	6.264	6.500	6.745	7.000	7.264	7.538	8.118	8.741	9.412	10.13	10.91					
8	5.987	6.239	6.501	6.776	7.062	7.361	7.674	8.000	8.341	8.696	9.455	10.28	11.18	12.16	13.23					
9	6.534	6.837	7.154	7.488	7.838	8.207	8.593	9.000	9.427	9.876	10.84	11.91	13.09	14.38	15.81					
10	7.046	7.401	7.777	8.173	8.593	9.036	9.505	10.000	10.52	11.08	12.28	13.63	15.13	16.81	18.68					
11	7.525	7.935	8.370	8.834	9.326	9.850	10.41	11.000	11.63	12.30	13.77	15.44	17.32	19.46	21.87					
12	7.972	8.438	8.937	9.469	10.04	10.65	11.30	12.000	12.75	13.55	15.32	17.35	19.68	22.35	25.41					
13	8.391	8.914	9.476	10.08	10.73	11.43	12.19	13.000	13.87	14.82	16.92	19.37	22.21	25.51	29.34					
14	8.782	9.363	9.991	10.67	11.41	12.20	13.07	14.000	15.01	16.11	18.59	21.50	24.93	28.97	35.71					
15	9.148	9.787	10.48	11.24	12.06	12.96	13.94	15.000	16.16	17.43	20.31	23.75	27.85	32.74	38.57					
16	9.490	10.19	10.95	11.79	12.70	13.70	14.80	16.000	17.32	18.77	22.10	26.13	30.99	36.86	43.97					
17	9.810	10.57	11.40	12.31	13.32	14.43	15.65	17.000	18.49	20.13	23.96	28.64	34.36	41.37	49.96					
18	10.11	10.92	11.82	12.82	13.92	15.14	16.50	18.000	19.67	21.52	25.88	31.28	37.98	46.29	56.62					
19	10.39	11.26	12.23	13.31	14.51	15.84	17.33	19.000	20.86	22.94	27.88	34.08	41.87	51.67	64.03					
20	10.65	11.58	12.62	13.78	15.08	16.53	18.16	20.000	22.06	24.39	29.95	37.02	46.04	57.55	72.25					
21	10.90	11.88	12.99	14.23	15.63	17.21	18.99	21.000	23.28	25.86	32.09	40.14	50.53	63.97	81.39					
22	11.13	12.17	13.34	14.67	16.17	17.87	19.80	22.000	24.50	27.35	34.32	43.42	55.34	70.99	91.55					
23	11.34	12.43	13.68	15.09	16.69	18.52	20.61	23.000	25.74	28.88	36.63	46.89	60.52	78.65	102.8					
24	11.54	12.69	14.00	15.49	17.20	19.16	21.41	24.000	26.99	30.43	39.02	50.55	66.07	87.03	115.4					
25	11.73	12.93	14.30	15.88	17.69	19.78	22.20	25.000	28.24	32.01	41.50	54.41	72.04	96.18	129.3					
26	11.90	13.15	14.59	16.25	18.17	20.40	22.99	26.000	29.52	33.62	44.08	58.49	78.45	106.2	144.8					
27	12.07	13.37	14.87	16.62	18.64	21.00	23.77	27.000	30.80	35.27	46.75	62.80	85.34	117.1	162.0					
28	12.22	13.57	15.14	16.96	19.10	21.60	24.54	28.000	32.09	36.94	49.52	67.34	92.73	129.0	181.1					
29	12.36	13.76	15.39	17.30	19.54	22.18	25.30	29.000	33.40	38.64	52.39	72.14	100.7	142.1	202.3					
30	12.50	13.94	15.63	17.62	19.97	22.75	26.06	30.000	34.72	40.37	55.37	77.20	109.2	156.3	225.9					
31	12.62	14.11	15.86	17.93	20.38	23.31	26.81	31.000	36.05	42.14	58.45	82.55	118.4	171.9	252.1					
32	12.74	14.27	16.08	18.23	20.78	23.86	27.55	32.000	37.39	43.94	61.65	88.19	128.2	188.9	281.2					
33	12.85	14.42	16.29	18.52	21.19	24.40	28.28	33.000	38.75	45.77	64.98	94.14	138.8	207.5	313.6					
34	12.95	14.57	16.49	18.79	21.57	24.93	29.01	34.000	40.11	47.64	68.42	100.4	150.1	227.8	349.5					
35	13.05	14.70	16.68	19.06	21.94	25.45	29.73	35.000	41.49	49.54	71.99	107.1	162.3	250.0	389.5					
36	13.14	14.83	16.86	19.32	22.31	25.96	30.45	36.000	42.89	51.47	75.69	114.1	175.4	274.2	433.9					
37	13.22	14.95	17.03	19.57	22.66	26.46	31.16	37.000	44.29	53.45	79.53	121.5	189.5	300.7	483.2					
38	13.30	15.06	17.20	19.80	23.00	26.95	31.86	38.000	45.71	55.45	83.52	129.3	204.6	329.6	538.0					
39	13.37	15.17	17.36	20.03	23.33	27.43	32.56	39.000	47.15	57.50	87.65	137.5	220.8	361.2	598.9					
40	13.44	15.27	17.51	20.25	23.66	27.91	33.25	40.000	48.59	59.58	91.93	146.2	238.3	395.8	666.6					

^a See page v for an explanation of the proper use of this table.

Table U-9
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 9%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9266	0.9358	0.9450	0.9541	0.9633	0.9725	0.9817	0.9908	1.0000	1.009	1.028	1.046	1.064	1.083	1.101					
2	1.785	1.811	1.838	1.864	1.891	1.918	1.945	1.973	2.000	2.028	2.083	2.140	2.197	2.255	2.313					
3	2.581	2.631	2.682	2.733	2.785	2.838	2.891	2.945	3.000	3.055	3.168	3.284	3.402	3.523	3.647					
4	3.318	3.398	3.479	3.562	3.646	3.732	3.820	3.909	4.000	4.093	4.283	4.480	4.685	4.897	5.116					
5	4.001	4.115	4.232	4.353	4.476	4.602	4.731	4.864	5.000	5.139	5.428	5.732	6.050	6.384	6.733					
6	4.634	4.787	4.944	5.107	5.275	5.448	5.626	5.810	6.000	6.196	6.605	7.040	7.503	7.993	8.514					
7	5.221	5.415	5.617	5.827	6.045	6.270	6.505	6.748	7.000	7.262	7.815	8.409	9.049	9.736	10.47					
8	5.764	6.003	6.253	6.514	6.786	7.070	7.367	7.677	8.000	8.337	9.057	9.841	10.69	11.62	12.63					
9	6.268	6.553	6.854	7.169	7.500	7.848	8.213	8.597	9.000	9.423	10.33	11.34	12.44	13.66	15.01					
10	6.734	7.068	7.421	7.794	8.188	8.605	9.044	9.509	10.000	10.52	11.65	12.90	14.31	15.88	17.62					
11	7.166	7.550	7.958	8.391	8.851	9.340	9.860	10.41	11.000	11.62	12.99	14.54	16.29	18.27	20.50					
12	7.567	8.001	8.465	8.960	9.490	10.06	10.66	11.31	12.000	12.74	14.38	16.25	18.40	20.86	23.67					
13	7.938	8.423	8.944	9.503	10.10	10.75	11.45	12.19	13.000	13.87	15.80	18.05	20.65	23.66	27.16					
14	8.282	8.818	9.396	10.02	10.70	11.43	12.22	13.07	14.000	15.00	17.26	19.92	23.04	26.70	31.00					
15	8.601	9.187	9.824	10.52	11.27	12.09	12.98	13.94	15.000	16.15	18.77	21.88	25.58	29.99	35.23					
16	8.896	9.533	10.23	10.99	11.82	12.73	13.72	14.81	16.000	17.31	20.31	23.93	28.29	33.55	39.89					
17	9.170	9.857	10.61	11.44	12.35	13.35	14.45	15.66	17.000	18.47	21.90	26.07	31.17	37.40	45.02					
18	9.424	10.16	10.97	11.87	12.86	13.95	15.17	16.51	18.000	19.65	23.53	28.31	34.24	41.57	50.66					
19	9.659	10.44	11.31	12.28	13.35	14.54	15.87	17.35	19.000	20.84	25.20	30.66	37.50	46.09	56.88					
20	9.876	10.71	11.63	12.67	13.82	15.11	16.56	18.18	20.000	22.04	26.92	33.11	40.97	50.97	63.72					
21	10.08	10.96	11.94	13.04	14.28	15.67	17.24	19.000	21.000	23.25	28.69	35.68	44.67	56.26	71.25					
22	10.26	11.19	12.23	13.40	14.72	16.21	17.90	19.82	22.000	24.48	30.51	38.36	48.60	61.99	79.54					
23	10.44	11.41	12.50	13.74	15.14	16.74	18.56	20.63	23.000	25.71	32.38	41.16	52.78	68.19	88.67					
24	10.60	11.61	12.76	14.06	15.55	17.25	19.20	21.43	24.000	26.96	34.30	44.10	57.24	74.91	98.71					
25	10.75	11.80	13.00	14.37	15.94	17.75	19.83	22.23	25.000	28.21	36.27	47.17	61.98	82.17	109.8					
26	10.88	11.98	13.23	14.66	16.32	18.23	20.44	23.01	26.000	29.48	38.29	50.38	67.02	90.04	122.0					
27	11.01	12.14	13.44	14.95	16.68	18.70	21.05	23.79	27.000	30.76	40.38	53.73	72.39	98.56	135.4					
28	11.13	12.30	13.65	15.21	17.04	19.16	21.65	24.57	28.000	32.05	42.51	57.24	78.10	107.8	150.1					
29	11.24	12.45	13.84	15.47	17.37	19.60	22.23	25.33	29.000	33.35	44.71	60.92	84.18	117.8	166.4					
30	11.34	12.58	14.03	15.72	17.70	20.04	22.80	26.09	30.000	34.67	46.97	64.76	90.66	128.6	184.3					
31	11.44	12.71	14.20	15.95	18.01	20.46	23.37	26.84	31.000	36.00	49.29	68.77	97.54	140.3	204.0					
32	11.52	12.83	14.36	16.17	18.32	20.87	23.92	27.59	32.000	37.34	51.67	72.97	104.9	152.9	225.7					
33	11.60	12.94	14.52	16.38	18.61	21.27	24.46	28.32	33.000	38.69	54.12	77.37	112.7	166.6	249.5					
34	11.68	13.05	14.66	16.59	18.89	21.65	25.00	29.05	34.000	40.05	56.64	81.96	121.0	181.5	275.8					
35	11.75	13.14	14.80	16.78	19.16	22.03	25.52	29.78	35.000	41.43	59.23	86.77	129.8	197.5	304.7					
36	11.81	13.24	14.93	16.96	19.42	22.40	26.03	30.50	36.000	42.82	61.88	91.79	139.2	214.9	336.6					
37	11.87	13.32	15.05	17.14	19.67	22.75	26.54	31.21	37.000	44.22	64.62	97.05	149.2	233.8	371.7					
38	11.93	13.40	15.17	17.31	19.91	23.10	27.03	31.91	38.000	45.64	67.42	102.5	159.9	254.2	410.3					
39	11.98	13.48	15.28	17.47	20.14	23.44	27.52	32.61	39.000	47.06	70.30	108.3	171.2	276.2	452.8					
40	12.03	13.55	15.38	17.62	20.37	23.76	27.99	33.30	40.000	48.50	73.27	114.3	183.2	300.1	499.6					

^a See page v for an explanation of the proper use of this table.

Table U-10
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 10%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9182	0.9273	0.9364	0.9455	0.9545	0.9636	0.9727	0.9818	0.9909	1.0000	1.018	1.036	1.055	1.073	1.091					
2	1.761	1.787	1.813	1.839	1.866	1.892	1.919	1.946	1.973	2.000	2.055	2.110	2.167	2.223	2.281					
3	2.535	2.584	2.634	2.684	2.735	2.787	2.839	2.892	2.946	3.000	3.110	3.224	3.339	3.458	3.579					
4	3.246	3.324	3.403	3.483	3.566	3.649	3.735	3.821	3.910	4.000	4.185	4.377	4.576	4.782	4.996					
5	3.899	4.009	4.123	4.239	4.358	4.480	4.605	4.734	4.865	5.000	5.279	5.573	5.880	6.203	6.541					
6	4.498	4.645	4.797	4.953	5.115	5.281	5.453	5.630	5.812	6.000	6.394	6.812	7.255	7.726	8.226					
7	5.048	5.234	5.428	5.628	5.837	6.053	6.277	6.509	6.750	7.000	7.528	8.096	8.706	9.361	10.06					
8	5.553	5.781	6.019	6.267	6.526	6.796	7.078	7.372	7.680	8.000	8.683	9.426	10.24	11.11	12.07					
9	6.017	6.288	6.572	6.871	7.184	7.513	7.858	8.220	8.601	9.000	9.859	10.81	11.85	13.00	14.26					
10	6.443	6.758	7.090	7.441	7.812	8.203	8.616	9.053	9.513	10.00	11.06	12.23	13.55	15.01	16.65					
11	6.834	7.194	7.575	7.981	8.411	8.868	9.354	9.870	10.42	11.00	12.28	13.72	15.34	17.18	19.25					
12	7.193	7.598	8.030	8.491	8.983	9.510	10.07	10.67	11.31	12.00	13.52	15.25	17.23	19.50	22.09					
13	7.523	7.972	8.455	8.973	9.530	10.13	10.77	11.46	12.20	13.00	14.78	16.84	19.23	21.99	25.19					
14	7.825	8.320	8.853	9.429	10.05	10.72	11.45	12.23	13.08	14.00	16.07	18.49	21.33	24.66	28.57					
15	8.103	8.642	9.226	9.860	10.55	11.30	12.11	12.99	13.95	15.00	17.38	20.20	23.55	27.53	32.26					
16	8.358	8.941	9.576	10.27	11.02	11.85	12.75	13.74	14.82	16.00	18.71	21.97	25.89	30.60	36.28					
17	8.593	9.218	9.903	10.65	11.48	12.38	13.38	14.47	15.67	17.00	20.07	23.81	28.36	33.90	40.67					
18	8.808	9.475	10.21	11.02	11.91	12.90	13.98	15.19	16.52	18.00	21.45	25.71	30.96	37.44	45.46					
19	9.005	9.713	10.50	11.36	12.32	13.39	14.58	15.89	17.36	19.00	22.86	27.68	33.70	41.24	50.69					
20	9.187	9.934	10.76	11.69	12.72	13.87	15.15	16.59	18.20	20.00	24.30	29.72	36.59	45.31	56.38					
21	9.353	10.14	11.02	12.00	13.09	14.33	15.71	17.24	19.02	21.00	25.76	31.84	39.64	49.68	62.60					
22	9.506	10.33	11.25	12.29	13.45	14.77	16.25	17.84	19.84	22.00	27.24	34.03	42.86	54.36	69.38					
23	9.647	10.50	11.47	12.56	13.80	15.20	16.78	18.59	20.65	23.00	28.76	36.31	46.25	59.39	76.78					
24	9.776	10.67	11.68	12.82	14.12	15.61	17.30	19.24	21.45	24.00	30.30	38.66	49.83	64.78	84.85					
25	9.894	10.82	11.87	13.07	14.44	16.00	17.80	19.87	22.25	25.00	31.87	41.11	53.60	70.57	93.66					
26	10.00	10.96	12.05	13.30	14.73	16.38	18.29	20.49	23.04	26.00	33.46	43.64	57.58	76.77	103.3					
27	10.10	11.09	12.22	13.52	15.02	16.75	18.76	21.10	23.82	27.00	35.09	46.26	61.78	83.43	113.7					
28	10.19	11.21	12.38	13.73	15.29	17.11	19.22	21.70	24.59	28.00	36.75	48.98	66.20	90.57	125.2					
29	10.28	11.32	12.53	13.93	15.55	17.45	19.67	22.28	25.36	29.00	38.43	51.80	70.87	98.23	137.6					
30	10.36	11.43	12.67	14.11	15.80	17.78	20.11	22.86	26.12	30.00	40.15	54.72	75.79	106.4	151.2					
31	10.43	11.52	12.80	14.29	16.04	18.09	20.53	23.48	26.88	31.00	41.90	57.74	80.97	111.3	166.1					
32	10.49	11.61	12.92	14.45	16.26	18.40	20.94	23.98	27.62	32.00	43.68	60.88	86.44	124.7	182.3					
33	10.55	11.69	13.03	14.61	16.48	18.69	21.35	24.53	28.36	33.00	45.49	64.13	92.21	134.9	199.9					
34	10.61	11.77	13.14	14.76	16.68	18.98	21.74	25.06	29.09	34.00	47.34	67.50	98.30	145.7	219.2					
35	10.66	11.84	13.24	14.90	16.88	19.25	22.12	25.59	29.82	35.00	49.21	70.99	104.7	157.4	240.2					
36	10.70	11.91	13.33	15.03	17.07	19.52	22.49	26.11	30.54	36.00	51.13	74.61	111.5	169.9	263.2					
37	10.75	11.97	13.42	15.16	17.24	19.77	22.85	26.61	31.25	37.00	53.08	78.35	118.6	183.4	288.2					
38	10.78	12.03	13.50	15.28	17.41	20.01	23.19	27.11	31.96	38.00	55.06	82.24	126.1	197.8	315.5					
39	10.82	12.08	13.58	15.39	17.58	20.25	23.54	27.60	32.66	39.00	57.08	86.27	134.1	213.2	345.2					
40	10.85	12.13	13.65	15.49	17.73	20.48	23.87	28.08	33.36	40.00	59.13	90.44	142.4	229.8	377.7					

^a See page v for an explanation of the proper use of this table.

Table U-11
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 11%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9099	0.9189	0.9279	0.9369	0.9459	0.9550	0.9640	0.9730	0.9820	0.9910	1.0009	1.027	1.045	1.063	1.081					
2	1.738	1.763	1.789	1.815	1.841	1.867	1.893	1.920	1.946	1.973	2.027	2.082	2.137	2.193	2.250					
3	2.491	2.539	2.588	2.637	2.687	2.738	2.789	2.841	2.893	2.946	3.054	3.165	3.278	3.395	3.513					
4	3.177	3.252	3.329	3.408	3.488	3.569	3.652	3.737	3.823	3.911	4.091	4.278	4.471	4.672	4.879					
5	3.800	3.908	4.017	4.130	4.245	4.364	4.485	4.609	4.736	4.866	5.137	5.420	5.718	6.029	6.356					
6	4.368	4.510	4.656	4.806	4.962	5.122	5.287	5.457	5.633	5.814	6.192	6.594	7.020	7.473	7.952					
7	4.884	5.063	5.248	5.440	5.640	5.846	6.061	6.283	6.513	6.752	7.257	7.799	8.382	9.007	9.678					
8	5.354	5.571	5.798	6.034	6.281	6.538	6.806	7.086	7.378	7.682	8.331	9.037	9.804	10.64	11.54					
9	5.782	6.038	6.308	6.591	6.887	7.198	7.525	7.867	8.227	8.604	9.415	10.31	11.29	12.37	13.56					
10	6.171	6.468	6.781	7.112	7.461	7.829	8.218	8.628	9.061	9.518	10.51	11.61	12.84	14.22	15.74					
11	6.525	6.862	7.220	7.600	8.003	8.431	8.885	9.368	9.879	10.42	11.61	12.95	14.47	16.17	18.10					
12	6.847	7.225	7.628	8.058	8.517	9.006	9.529	10.09	10.68	11.32	12.73	14.33	16.16	18.26	20.65					
13	7.140	7.558	8.006	8.487	9.002	9.556	10.15	10.79	11.47	12.21	13.85	15.75	17.94	20.47	23.40					
14	7.407	7.864	8.357	8.888	9.462	10.08	10.75	11.47	12.25	13.09	14.98	17.20	19.79	22.83	26.38					
15	7.649	8.145	8.683	9.265	9.896	10.58	11.32	12.13	13.01	13.96	16.13	18.69	21.73	25.33	29.60					
16	7.870	8.404	8.985	9.618	10.31	11.06	11.88	12.78	13.76	14.83	17.28	20.22	23.75	27.99	33.08					
17	8.071	8.641	9.265	9.948	10.70	11.52	12.42	13.40	14.49	15.69	18.45	21.80	25.87	30.82	36.85					
18	8.254	8.860	9.525	10.26	11.06	11.95	12.93	14.02	15.21	16.54	19.62	23.41	28.08	33.82	40.92					
19	8.420	9.060	9.767	10.55	11.41	12.37	13.43	14.61	15.92	17.38	20.81	25.07	30.39	37.02	45.31					
20	8.571	9.245	9.991	10.82	11.74	12.77	13.91	15.19	16.62	18.21	22.00	26.78	32.80	40.42	50.07					
21	8.709	9.414	10.20	11.07	12.05	13.15	14.37	15.75	17.30	19.04	23.21	28.53	35.32	44.03	55.21					
22	8.834	9.570	10.39	11.31	12.35	13.51	14.82	16.30	17.97	19.86	24.43	30.33	37.96	47.87	60.77					
23	8.948	9.713	10.57	11.54	12.63	13.86	15.25	16.83	18.63	20.67	25.66	32.17	40.71	51.95	66.78					
24	9.052	9.844	10.74	11.75	12.89	14.19	15.66	17.35	19.27	21.48	26.90	34.07	43.59	56.29	73.27					
25	9.147	9.965	10.89	11.94	13.14	14.50	16.06	17.85	19.91	22.27	28.15	36.02	46.60	60.90	80.29					
26	9.232	10.08	11.03	12.13	13.37	14.80	16.45	18.34	20.53	23.06	29.41	38.02	49.75	65.81	87.88					
27	9.311	10.18	11.17	12.30	13.60	15.09	16.82	18.82	21.14	23.85	30.69	40.07	53.03	71.02	96.09					
28	9.382	10.27	11.29	12.46	13.81	15.37	17.18	19.28	21.74	24.62	31.97	42.18	56.47	76.56	105.0					
29	9.446	10.36	11.40	12.61	14.01	15.63	17.52	19.74	22.33	25.39	33.27	44.35	60.05	82.45	114.6					
30	9.505	10.44	11.51	12.75	14.20	15.88	17.85	20.18	22.91	26.15	34.58	46.57	63.80	88.72	124.9					
31	9.559	10.51	11.61	12.88	14.37	16.12	18.18	20.60	23.48	26.91	35.90	48.86	67.72	95.37	136.1					
32	9.608	10.58	11.70	13.01	14.54	16.35	18.48	21.02	24.04	27.66	37.23	51.21	71.82	102.5	148.3					
33	9.652	10.64	11.78	13.13	14.70	16.57	18.78	21.42	24.59	28.40	38.58	53.62	76.10	110.0	161.4					
34	9.692	10.69	11.86	13.24	14.85	16.78	19.07	21.82	25.13	29.13	39.93	56.10	80.57	118.0	175.5					
35	9.729	10.75	11.94	13.34	15.00	16.98	19.35	22.20	25.66	29.86	41.30	58.64	85.25	126.5	190.8					
36	9.763	10.79	12.00	13.43	15.13	17.17	19.61	22.57	26.18	30.59	42.68	61.25	90.13	135.5	207.4					
37	9.793	10.84	12.07	13.52	15.26	17.35	19.87	22.94	26.69	31.30	44.08	63.93	95.24	145.1	225.3					
38	9.821	10.88	12.12	13.61	15.38	17.52	20.12	23.29	27.19	32.01	45.48	66.69	100.6	155.3	244.6					
39	9.846	10.91	12.18	13.69	15.50	17.69	20.36	23.63	27.68	32.71	46.90	69.52	106.1	166.2	265.5					
40	9.869	10.95	12.23	13.76	15.60	17.85	20.59	23.97	28.16	33.41	48.33	72.42	112.0	177.7	288.2					

^a See page v for an explanation of the proper use of this table.

Table U-12
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 12%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9018	0.9107	0.9196	0.9286	0.9375	0.9464	0.9554	0.9643	0.9732	0.9821	1.000	1.018	1.036	1.054	1.071					
2	1.715	1.740	1.765	1.791	1.816	1.842	1.868	1.894	1.920	1.947	2.000	2.054	2.108	2.164	2.219					
3	2.448	2.495	2.543	2.591	2.640	2.690	2.740	2.791	2.842	2.894	3.000	3.108	3.219	3.333	3.449					
4	3.110	3.183	3.258	3.335	3.413	3.492	3.573	3.655	3.739	3.825	4.000	4.182	4.370	4.565	4.767					
5	3.706	3.810	3.916	4.025	4.137	4.252	4.369	4.489	4.612	4.738	5.000	5.274	5.562	5.863	6.179					
6	4.244	4.380	4.521	4.666	4.816	4.970	5.129	5.293	5.462	5.636	6.000	6.386	6.796	7.231	7.692					
7	4.729	4.900	5.078	5.262	5.452	5.650	5.856	6.068	6.289	6.517	7.000	7.518	8.075	8.672	9.313					
8	5.166	5.373	5.589	5.814	6.049	6.294	6.550	6.816	7.094	7.383	8.000	8.670	9.399	10.19	11.05					
9	5.561	5.804	6.060	6.328	6.609	6.903	7.213	7.537	7.877	8.234	9.000	9.843	10.77	11.79	12.91					
10	5.916	6.197	6.492	6.804	7.133	7.480	7.846	8.232	8.639	9.069	10.00	11.04	12.19	13.47	14.90					
11	6.237	6.554	6.890	7.247	7.625	8.026	8.451	8.902	9.381	9.889	11.00	12.25	13.66	15.25	17.04					
12	6.526	6.880	7.256	7.658	8.086	8.542	9.029	9.549	10.10	10.69	12.00	13.49	15.19	17.12	19.33					
13	6.787	7.176	7.593	8.039	8.518	9.031	9.581	10.17	10.81	11.49	13.00	14.75	16.76	19.09	21.78					
14	7.022	7.446	7.902	8.394	8.923	9.494	10.11	10.77	11.49	12.26	14.00	16.03	18.40	21.17	24.41					
15	7.234	7.692	8.187	8.723	9.303	9.931	10.61	11.35	12.15	13.03	15.00	17.33	20.09	23.36	27.22					
16	7.426	7.916	8.449	9.028	9.659	10.35	11.09	11.91	12.80	13.78	16.00	18.66	21.84	25.66	30.24					
17	7.598	8.120	8.689	9.312	9.993	10.74	11.55	12.45	13.43	14.51	17.00	20.01	23.66	28.09	33.47					
18	7.754	8.306	8.911	9.575	10.31	11.11	11.99	12.97	14.05	15.23	18.00	21.39	25.54	30.65	36.93					
19	7.894	8.475	9.114	9.820	10.60	11.46	12.41	13.47	14.64	15.94	19.00	22.79	27.49	33.34	40.64					
20	8.020	8.629	9.302	10.05	10.87	11.79	12.82	13.95	15.22	16.64	20.00	24.21	29.51	36.18	44.62					
21	8.134	8.769	9.474	10.26	11.13	12.11	13.20	14.42	15.79	17.33	21.00	25.66	31.60	39.17	48.87					
22	8.237	8.897	9.632	10.45	11.37	12.41	13.56	14.87	16.34	18.00	22.00	27.14	33.76	42.33	53.44					
23	8.330	9.013	9.778	10.64	11.60	12.69	13.91	15.30	16.88	18.66	23.00	28.64	36.00	45.65	58.32					
24	8.414	9.119	9.912	10.80	11.81	12.95	14.25	15.72	17.40	19.31	24.00	30.17	38.32	48.15	63.56					
25	8.489	9.216	10.03	10.96	12.01	13.21	14.57	16.12	17.90	19.95	25.00	31.72	40.73	52.83	69.17					
26	8.557	9.304	10.15	11.11	12.20	13.45	14.87	16.51	18.40	20.57	26.00	33.31	43.22	56.72	75.19					
27	8.619	9.384	10.25	11.24	12.37	13.67	15.16	16.89	18.88	21.19	27.00	34.92	45.80	60.81	81.63					
28	8.674	9.456	10.35	11.37	12.54	13.89	15.44	17.25	19.35	21.79	28.00	36.56	48.47	65.12	88.53					
29	8.724	9.523	10.44	11.48	12.69	14.09	15.71	17.60	19.80	22.38	29.00	38.23	51.23	69.66	95.92					
30	8.769	9.583	10.52	11.59	12.84	14.28	15.96	18.26	20.24	22.97	30.00	39.93	54.10	74.45	103.8					
31	8.809	9.638	10.59	11.69	12.97	14.46	16.21	18.57	20.67	23.54	31.00	41.67	57.07	79.49	112.3					
32	8.846	9.689	10.66	11.79	13.10	14.63	16.44	18.87	21.09	24.10	32.00	43.43	60.14	84.80	121.4					
33	8.879	9.734	10.72	11.87	13.22	14.80	16.66	19.16	21.50	24.65	33.00	45.22	63.32	90.40	131.2					
34	8.909	9.776	10.78	11.95	13.33	14.95	16.87	19.44	21.90	25.19	34.00	47.05	66.62	96.29	141.6					
35	8.935	9.814	10.83	12.03	13.43	15.09	17.07	19.74	22.29	25.73	35.00	48.90	70.04	102.5	152.8					
36	8.960	9.848	10.88	12.10	13.53	15.23	17.27	19.97	22.66	26.25	36.00	50.80	73.57	109.0	164.8					
37	8.981	9.880	10.93	12.16	13.62	15.36	17.45	19.97	23.03	26.76	37.00	52.72	77.24	115.9	177.6					
38	9.001	9.908	10.97	12.22	13.71	15.49	17.63	20.22	23.38	27.27	38.00	54.68	81.03	123.2	191.4					
39	9.019	9.934	11.01	12.28	13.79	15.60	17.80	20.46	23.73	27.76	39.00	56.67	84.96	130.9	206.1					
40	9.035	9.958	11.04	12.33	13.87	15.71	17.96	20.70	24.07	28.25	40.00	58.70	89.03	138.9	221.9					

^a See page v for an explanation of the proper use of this table.

Table U-13
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 13%

Period	Rate of Price Increase per Period														
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%
1	0.9938	0.9027	0.9115	0.9204	0.9292	0.9381	0.9469	0.9558	0.9646	0.9734	0.9912	1.009	1.027	1.044	1.062
2	1.693	1.717	1.742	1.767	1.793	1.818	1.844	1.869	1.895	1.921	1.974	2.027	2.080	2.135	2.190
3	2.407	2.453	2.500	2.547	2.595	2.643	2.693	2.742	2.793	2.844	2.947	3.053	3.162	3.273	3.387
4	3.045	3.117	3.190	3.264	3.340	3.418	3.496	3.577	3.658	3.741	3.912	4.089	4.273	4.463	4.659
5	3.615	3.716	3.819	3.925	4.033	4.144	4.258	4.374	4.493	4.616	4.869	5.134	5.413	5.704	6.010
6	4.125	4.257	4.393	4.533	4.677	4.825	4.979	5.136	5.298	5.466	5.817	6.189	6.583	7.001	7.444
7	4.581	4.745	4.915	5.092	5.275	5.465	5.661	5.865	6.076	6.295	6.757	7.252	7.784	8.355	8.967
8	4.988	5.186	5.392	5.607	5.831	6.064	6.307	6.561	6.826	7.101	7.688	8.325	9.017	9.769	10.58
9	5.352	5.584	5.826	6.081	6.347	6.626	6.919	7.227	7.549	7.886	8.611	9.408	10.28	11.25	12.30
10	5.678	5.943	6.222	6.517	6.827	7.154	7.499	7.863	8.246	8.650	9.526	10.50	11.58	12.79	14.13
11	5.969	6.267	6.583	6.918	7.273	7.649	8.048	8.470	8.919	9.394	10.43	11.60	12.92	14.40	16.06
12	6.229	6.560	6.912	7.287	7.687	8.113	8.567	9.051	9.568	10.12	11.33	12.71	14.29	16.08	18.12
13	6.461	6.824	7.212	7.627	8.072	8.549	9.059	9.607	10.19	10.82	12.22	13.83	15.69	17.83	20.30
14	6.669	7.062	7.485	7.940	8.430	8.957	9.525	10.14	10.80	11.51	13.11	14.97	17.14	19.67	22.62
15	6.854	7.277	7.734	8.228	8.762	9.340	9.966	10.64	11.38	12.18	13.98	16.11	18.62	21.58	25.09
16	7.020	7.472	7.961	8.493	9.071	9.700	10.38	11.13	11.94	12.83	14.85	17.26	20.14	23.58	27.70
17	7.169	7.647	8.168	8.737	9.358	10.04	10.78	11.59	12.48	13.46	15.71	18.42	21.70	25.67	30.48
18	7.301	7.805	8.357	8.962	9.625	10.35	11.15	12.04	13.01	14.08	16.56	19.59	23.30	27.85	33.44
19	7.420	7.948	8.529	9.168	9.873	10.65	11.51	12.46	13.51	14.68	17.40	20.77	24.95	30.13	36.56
20	7.525	8.077	8.686	9.358	10.10	10.93	11.84	12.86	14.00	15.26	18.24	21.97	26.64	32.50	39.89
21	7.620	8.193	8.828	9.533	10.32	11.19	12.16	13.25	14.47	15.83	19.07	23.17	28.37	34.99	43.43
22	7.705	8.298	8.959	9.694	10.52	11.43	12.46	13.62	14.92	16.38	19.89	24.38	30.15	37.58	47.18
23	7.780	8.393	9.077	9.843	10.70	11.66	12.75	13.97	15.35	16.92	20.71	25.61	31.98	40.28	51.16
24	7.848	8.479	9.186	9.979	10.87	11.88	13.02	14.31	15.78	17.44	21.52	26.84	33.85	43.11	55.39
25	7.908	8.556	9.284	10.10	11.03	12.08	13.27	14.63	16.18	17.95	22.32	28.09	35.78	46.06	59.89
26	7.962	8.626	9.374	10.22	11.18	12.27	13.52	14.94	16.57	18.45	23.11	29.35	37.75	49.15	64.66
27	8.011	8.689	9.456	10.33	11.32	12.45	13.75	15.24	16.95	18.93	23.90	30.62	39.78	52.36	69.73
28	8.054	8.746	9.531	10.42	11.45	12.62	13.96	15.52	17.32	19.41	24.68	31.90	41.86	55.73	75.11
29	8.092	8.797	9.599	10.51	11.56	12.77	14.17	15.79	17.67	19.86	25.45	33.19	44.00	59.24	80.82
30	8.127	8.843	9.661	10.60	11.67	12.92	14.36	16.04	18.01	20.31	26.22	34.49	46.20	62.90	86.89
31	8.157	8.885	9.717	10.67	11.78	13.06	14.55	16.29	18.33	20.74	26.98	35.80	48.45	66.73	93.33
32	8.185	8.923	9.769	10.74	11.87	13.19	14.72	16.52	18.65	21.17	27.73	37.13	50.76	70.73	100.2
33	8.210	8.957	9.816	10.81	11.96	13.31	14.89	16.75	18.95	21.58	28.47	38.47	53.14	74.90	107.4
34	8.232	8.988	9.859	10.87	12.04	13.42	15.04	16.96	19.25	21.98	29.21	39.82	55.57	79.26	115.2
35	8.251	9.015	9.898	10.92	12.12	13.53	15.19	17.17	19.53	22.37	29.95	41.18	58.08	83.81	123.4
36	8.269	9.040	9.933	10.97	12.19	13.63	15.33	17.36	19.80	22.75	30.67	42.55	60.64	88.56	132.1
37	8.284	9.063	9.966	11.02	12.26	13.72	15.46	17.55	20.07	23.12	31.39	43.94	63.28	93.52	141.3
38	8.299	9.083	9.995	11.06	12.32	13.81	15.59	17.73	20.32	23.48	32.10	45.33	65.99	98.71	151.1
39	8.311	9.102	10.02	11.10	12.38	13.89	15.71	17.90	20.57	23.83	32.81	46.74	68.77	104.1	161.5
40	8.322	9.119	10.05	11.14	12.43	13.97	15.82	18.07	20.80	24.17	33.51	48.17	71.62	109.8	172.6

^a See page v for an explanation of the proper use of this table.

Table U-14
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES*
 Discount rate = 14%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8860	0.8947	0.9035	0.9123	0.9211	0.9298	0.9386	0.9474	0.9561	0.9649	0.9825	1.0000	1.018	1.035	1.053					
2	1.671	1.695	1.720	1.745	1.769	1.794	1.820	1.845	1.870	1.896	1.948	2.000	2.053	2.107	2.161					
3	2.366	2.412	2.457	2.504	2.551	2.598	2.646	2.695	2.744	2.794	2.896	3.000	3.106	3.216	3.327					
4	2.982	3.052	3.124	3.196	3.270	3.346	3.423	3.501	3.580	3.661	3.828	4.000	4.179	4.363	4.555					
5	3.528	3.626	3.726	3.828	3.933	4.041	4.151	4.264	4.379	4.498	4.743	5.000	5.269	5.552	5.847					
6	4.012	4.139	4.270	4.405	4.544	4.687	4.835	4.987	5.143	5.305	5.642	6.000	6.379	6.781	7.207					
7	4.440	4.598	4.761	4.931	5.106	5.288	5.476	5.672	5.874	6.084	6.526	7.000	7.509	8.055	8.639					
8	4.820	5.009	5.205	5.410	5.624	5.847	6.079	6.321	6.572	6.835	7.394	8.000	8.658	9.372	10.15					
9	5.156	5.376	5.607	5.848	6.101	6.366	6.644	6.935	7.240	7.560	8.246	9.000	9.828	10.74	11.73					
10	5.454	5.705	5.969	6.247	6.541	6.849	7.175	7.518	7.879	8.260	9.084	10.00	11.02	12.15	13.40					
11	5.718	5.999	6.297	6.612	6.945	7.298	7.673	8.069	8.489	8.935	9.907	11.00	12.23	13.61	15.16					
12	5.952	6.263	6.593	6.944	7.318	7.716	8.140	8.592	9.073	9.586	10.72	12.00	13.46	15.12	17.01					
13	6.159	6.498	6.860	7.247	7.661	8.104	8.579	9.087	9.631	10.21	11.51	13.00	14.71	16.69	18.96					
14	6.343	6.709	7.102	7.524	7.977	8.466	8.991	9.556	10.17	10.82	12.29	14.00	15.99	18.31	21.01					
15	6.506	6.897	7.320	7.776	8.269	8.801	9.377	10.00	10.68	11.41	13.06	15.00	17.29	19.99	23.17					
16	6.650	7.066	7.517	8.006	8.537	9.114	9.740	10.42	11.16	11.97	13.81	16.00	18.61	21.72	25.44					
17	6.777	7.217	7.695	8.216	8.784	9.404	10.08	10.82	11.63	12.52	14.55	17.00	19.95	23.52	27.83					
18	6.890	7.352	7.856	8.408	9.012	9.674	10.40	11.20	12.08	13.04	15.28	18.00	21.32	25.38	30.35					
19	6.991	7.473	8.002	8.582	9.221	9.925	10.70	11.56	12.50	13.55	15.99	19.00	22.71	27.31	33.00					
20	7.079	7.581	8.133	8.742	9.414	10.16	10.98	11.90	12.90	14.04	16.69	20.00	24.13	29.30	35.79					
21	7.158	7.678	8.252	8.887	9.592	10.38	11.25	12.22	13.30	14.51	17.38	21.00	25.57	31.36	38.73					
22	7.228	7.764	8.359	9.020	9.756	10.58	11.49	12.52	13.67	14.97	18.06	22.00	27.03	33.50	41.82					
23	7.290	7.842	8.456	9.141	9.907	10.76	11.73	12.81	14.03	15.41	18.73	23.00	28.53	35.71	45.07					
24	7.344	7.911	8.544	9.252	10.05	10.94	11.95	13.08	14.37	15.83	19.38	24.00	30.04	38.00	48.50					
25	7.393	7.973	8.623	9.352	10.17	11.10	12.15	13.34	14.70	16.24	20.02	25.00	31.59	40.36	52.10					
26	7.436	8.028	8.694	9.444	10.29	11.25	12.34	13.59	15.01	16.64	20.65	26.00	33.16	42.82	55.90					
27	7.474	8.078	8.759	9.528	10.40	11.39	12.52	13.82	15.31	17.02	21.27	27.00	34.76	45.35	59.89					
28	7.507	8.123	8.817	9.605	10.50	11.52	12.69	14.04	15.59	17.38	21.88	28.00	36.39	47.98	64.09					
29	7.537	8.162	8.870	9.674	10.59	11.64	12.85	14.25	15.86	17.74	22.48	29.00	38.04	50.70	68.52					
30	7.564	8.198	8.918	9.738	10.68	11.76	13.00	14.44	16.12	18.08	23.07	30.00	39.73	53.51	73.18					
31	7.587	8.230	8.961	9.796	10.76	11.86	13.14	14.63	16.37	18.41	23.65	31.00	41.44	56.42	78.08					
32	7.608	8.258	8.999	9.849	10.83	11.96	13.27	14.81	16.61	18.73	24.22	32.00	43.19	59.44	83.25					
33	7.626	8.284	9.035	9.897	10.89	12.05	13.40	14.98	16.84	19.04	24.77	33.00	44.96	62.56	88.68					
34	7.643	8.306	9.066	9.941	10.95	12.13	13.51	15.14	17.06	19.34	25.32	34.00	46.77	65.79	94.40					
35	7.657	8.327	9.095	9.982	11.01	12.21	13.62	15.29	17.26	19.62	25.86	35.00	48.61	69.13	100.4					
36	7.670	8.345	9.121	10.02	11.06	12.28	13.72	15.43	17.46	19.90	26.39	36.00	50.48	72.59	106.8					
37	7.681	8.361	9.144	10.05	11.11	12.35	13.82	15.57	17.65	20.17	26.91	37.00	52.38	76.18	113.4					
38	7.691	8.376	9.166	10.08	11.15	12.42	13.91	15.69	17.83	20.42	27.42	38.00	54.32	79.88	120.5					
39	7.700	8.389	9.185	10.11	11.19	12.47	13.99	15.81	18.01	20.67	27.92	39.00	56.29	83.72	127.8					
40	7.708	8.401	9.202	10.14	11.23	12.53	14.07	15.93	18.17	20.91	28.41	40.00	58.29	87.70	135.6					

* See page v for an explanation of the proper use of this table.

Table U-15
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 15%

Period	Rate of Price Increase per Period														
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%
1	0.8783	0.8870	0.8957	0.9043	0.9130	0.9217	0.9304	0.9391	0.9478	0.9565	0.9739	0.9913	1.009	1.026	1.043
2	1.650	1.674	1.698	1.722	1.747	1.771	1.796	1.821	1.846	1.871	1.922	1.974	2.026	2.079	2.132
3	2.327	2.371	2.416	2.462	2.508	2.554	2.602	2.649	2.698	2.747	2.846	2.948	3.052	3.159	3.269
4	2.922	2.990	3.060	3.131	3.203	3.276	3.351	3.427	3.505	3.584	3.746	3.914	4.088	4.268	4.454
5	3.445	3.539	3.636	3.736	3.837	3.942	4.048	4.158	4.270	4.384	4.622	4.871	5.132	5.405	5.691
6	3.903	4.026	4.152	4.283	4.417	4.555	4.697	4.844	4.995	5.150	5.475	5.820	6.185	6.572	6.982
7	4.307	4.458	4.615	4.777	4.946	5.120	5.301	5.488	5.682	5.883	6.306	6.761	7.248	7.770	8.329
8	4.661	4.841	5.029	5.225	5.429	5.641	5.863	6.093	6.333	6.584	7.116	7.693	8.319	8.999	9.735
9	4.971	5.181	5.400	5.629	5.870	6.121	6.385	6.661	6.951	7.254	7.904	8.618	9.400	10.26	11.20
10	5.244	5.482	5.732	5.995	6.272	6.564	6.871	7.195	7.536	7.895	8.672	9.534	10.49	11.55	12.73
11	5.484	5.749	6.030	6.326	6.640	6.972	7.324	7.696	8.091	8.508	9.420	10.44	11.59	12.88	14.33
12	5.695	5.986	6.296	6.625	6.976	7.348	7.745	8.167	8.616	9.095	10.15	11.34	12.70	14.24	16.00
13	5.890	6.197	6.535	6.896	7.282	7.695	8.136	8.609	9.115	9.656	10.86	12.24	13.82	15.64	17.73
14	6.042	6.383	6.748	7.141	7.562	8.014	8.501	9.024	9.587	10.19	11.55	13.12	14.95	17.07	19.55
15	6.185	6.548	6.940	7.362	7.817	8.309	8.840	9.414	10.03	10.71	12.22	14.00	16.09	18.55	21.44
16	6.310	6.695	7.111	7.562	8.051	8.580	9.155	9.780	10.46	11.20	12.88	14.87	17.24	20.06	23.42
17	6.420	6.825	7.265	7.743	8.264	8.831	9.449	10.12	10.86	11.67	13.51	15.73	18.39	21.61	25.48
18	6.517	6.943	7.403	7.907	8.458	9.061	9.722	10.45	11.24	12.12	14.13	16.58	19.56	23.19	27.63
19	6.602	7.043	7.526	8.055	8.636	9.274	9.976	10.75	11.60	12.55	14.74	17.43	20.74	24.83	29.88
20	6.676	7.134	7.636	8.189	8.798	9.470	10.21	11.03	11.95	12.96	15.33	18.27	21.93	26.50	32.22
21	6.742	7.214	7.735	8.310	8.946	9.650	10.43	11.30	12.27	13.35	15.90	19.10	23.13	28.22	34.66
22	6.799	7.286	7.823	8.419	9.081	9.817	10.64	11.55	12.58	13.73	16.46	19.93	24.34	29.98	37.21
23	6.850	7.349	7.903	8.518	9.204	9.970	10.83	11.79	12.87	14.09	17.01	20.75	25.56	31.79	39.87
24	6.894	7.405	7.974	8.608	9.317	10.11	11.00	12.01	13.15	14.43	17.54	21.56	26.79	33.64	42.65
25	6.933	7.455	8.037	8.689	9.420	10.24	11.17	12.22	13.41	14.76	18.05	22.36	28.03	35.55	45.55
26	6.967	7.499	8.094	8.762	9.514	10.36	11.32	12.41	13.66	15.07	18.56	23.16	29.29	37.50	48.57
27	6.998	7.539	8.145	8.828	9.600	10.47	11.47	12.60	13.99	15.38	19.05	23.95	30.55	39.50	51.73
28	7.024	7.573	8.191	8.888	9.678	10.58	11.60	12.77	14.11	15.66	19.52	24.73	31.82	41.56	55.02
29	7.047	7.604	8.232	8.942	9.749	10.67	11.72	12.93	14.33	15.94	19.99	25.51	33.11	43.67	58.46
30	7.067	7.632	8.269	8.991	9.815	10.76	11.84	13.08	14.53	16.20	20.44	26.28	34.40	45.84	62.04
31	7.085	7.656	8.302	9.036	9.874	10.84	11.94	13.23	14.72	16.45	20.88	27.04	35.71	48.06	65.78
32	7.101	7.677	8.331	9.076	9.929	10.91	12.04	13.36	14.90	16.70	21.31	27.80	37.03	50.34	69.69
33	7.115	7.696	8.357	9.112	9.978	10.98	12.14	13.49	15.07	16.93	21.73	28.55	38.36	52.68	73.76
34	7.127	7.713	8.381	9.145	10.02	11.04	12.22	13.60	15.23	17.15	22.14	29.29	39.70	55.08	78.01
35	7.138	7.728	8.402	9.174	10.07	11.10	12.30	13.72	15.38	17.36	22.53	30.02	41.06	57.54	82.45
36	7.147	7.742	8.421	9.201	10.10	11.15	12.38	13.82	15.53	17.56	22.92	30.76	42.42	60.07	87.07
37	7.155	7.753	8.438	9.225	10.14	11.20	12.45	13.92	15.66	17.75	23.29	31.48	43.80	62.66	91.90
38	7.162	7.764	8.453	9.247	10.17	11.25	12.51	14.01	15.80	17.94	23.66	32.20	45.19	65.32	96.94
39	7.169	7.773	8.467	9.267	10.20	11.29	12.57	14.10	15.92	18.11	24.02	32.91	46.59	68.05	102.2
40	7.174	7.781	8.479	9.285	10.22	11.33	12.63	14.18	16.04	18.28	24.36	33.61	48.01	70.85	107.7

^a See page v for an explanation of the proper use of this table.

Table U-16
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 16%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8707	0.8793	0.8879	0.8966	0.9052	0.9138	0.9224	0.9310	0.9397	0.9483	0.9655	0.9828	1.000	1.017	1.034					
2	1.629	1.652	1.676	1.700	1.725	1.749	1.773	1.798	1.823	1.848	1.898	1.949	2.000	2.052	2.105					
3	2.289	2.332	2.376	2.421	2.466	2.512	2.558	2.605	2.652	2.700	2.798	2.898	3.000	3.105	3.212					
4	2.864	2.930	2.998	3.067	3.137	3.209	3.282	3.356	3.432	3.509	3.667	3.831	4.000	4.175	4.357					
5	3.364	3.456	3.550	3.646	3.745	3.846	3.950	4.056	4.164	4.276	4.506	4.747	5.000	5.265	5.542					
6	3.800	3.918	4.040	4.166	4.295	4.428	4.566	4.707	4.853	5.003	5.316	5.648	6.000	6.373	6.767					
7	4.179	4.325	4.475	4.631	4.793	4.960	5.134	5.314	5.500	5.692	6.098	6.534	7.000	7.500	8.035					
8	4.509	4.682	4.862	5.049	5.244	5.447	5.658	5.878	6.107	6.346	6.854	7.404	8.000	8.646	9.347					
9	4.797	4.996	5.205	5.423	5.652	5.891	6.141	6.404	6.678	6.966	7.583	8.259	9.000	9.813	10.70					
10	5.047	5.272	5.509	5.759	6.021	6.297	6.587	6.893	7.215	7.554	8.287	9.099	10.00	11.00	12.11					
11	5.265	5.515	5.780	6.059	6.355	6.668	6.999	7.349	7.719	8.112	8.967	9.925	11.00	12.21	13.56					
12	5.455	5.729	6.020	6.329	6.658	7.007	7.378	7.773	8.193	8.640	9.623	10.74	12.00	13.43	15.06					
13	5.620	5.917	6.233	6.571	6.931	7.317	7.728	8.168	8.638	9.142	10.26	11.53	13.00	14.68	16.61					
14	5.764	6.082	6.423	6.788	7.179	7.600	8.051	8.536	9.057	9.617	10.87	12.32	14.00	15.95	18.22					
15	5.890	6.227	6.591	6.982	7.404	7.858	8.349	8.878	9.450	10.07	11.46	13.09	15.00	17.25	19.89					
16	5.999	6.355	6.740	7.156	7.607	8.095	8.623	9.197	9.819	10.50	12.03	13.85	16.00	18.56	21.61					
17	6.094	6.467	6.873	7.313	7.791	8.311	8.877	9.494	10.17	10.90	12.58	14.59	17.00	19.90	23.38					
18	6.176	6.566	6.990	7.453	7.957	8.508	9.110	9.770	10.49	11.29	13.11	15.32	18.00	21.26	25.23					
19	6.248	6.653	7.095	7.578	8.108	8.688	9.326	10.03	10.80	11.65	13.63	16.04	19.00	22.64	27.13					
20	6.311	6.729	7.188	7.691	8.247	8.853	9.525	10.27	11.09	12.00	14.12	16.75	20.00	24.05	29.10					
21	6.366	6.797	7.270	7.792	8.367	9.004	9.708	10.49	11.36	12.32	14.60	17.44	21.00	25.48	31.14					
22	6.413	6.856	7.343	7.882	8.479	9.141	9.877	10.70	11.61	12.63	15.06	18.12	22.00	26.94	33.25					
23	6.455	6.907	7.408	7.963	8.580	9.267	10.03	10.89	11.85	12.93	15.51	18.79	23.00	28.42	35.43					
24	6.491	6.953	7.466	8.036	8.672	9.382	10.18	11.07	12.08	13.21	15.94	19.45	24.00	29.93	37.68					
25	6.522	6.993	7.517	8.101	8.755	9.487	10.31	11.24	12.29	13.47	16.35	20.10	25.00	31.46	40.02					
26	6.549	7.029	7.563	8.160	8.830	9.583	10.43	11.39	12.48	13.72	16.76	20.73	26.00	33.02	42.43					
27	6.573	7.060	7.603	8.212	8.898	9.671	10.55	11.54	12.67	13.96	17.14	21.36	27.00	34.61	44.93					
28	6.594	7.087	7.639	8.259	8.959	9.751	10.65	11.67	12.85	14.19	17.52	21.97	28.00	36.22	47.51					
29	6.612	7.111	7.671	8.301	9.015	9.824	10.75	11.80	13.01	14.40	17.88	22.58	29.00	37.86	50.19					
30	6.628	7.132	7.699	8.339	9.065	9.891	10.83	11.92	13.16	14.61	18.23	23.17	30.00	39.53	52.95					
31	6.641	7.151	7.724	8.373	9.110	9.952	10.92	12.03	13.31	14.80	18.57	23.75	31.00	41.23	55.81					
32	6.653	7.167	7.746	8.403	9.152	10.01	10.99	12.13	13.45	14.98	18.89	24.33	32.00	42.96	58.77					
33	6.664	7.181	7.766	8.431	9.189	10.06	11.06	12.22	13.57	15.16	19.20	24.89	33.00	44.72	61.83					
34	6.673	7.194	7.784	8.455	9.223	10.11	11.13	12.31	13.70	15.32	19.51	25.44	34.00	46.50	65.00					
35	6.680	7.205	7.799	8.477	9.253	10.15	11.18	12.39	13.81	15.48	19.80	25.99	35.00	48.32	68.27					
36	6.687	7.215	7.813	8.497	9.281	10.19	11.24	12.47	13.91	15.62	20.08	26.52	36.00	50.17	71.66					
37	6.693	7.223	7.826	8.514	9.306	10.22	11.29	12.54	14.01	15.76	20.36	27.05	37.00	52.06	75.17					
38	6.698	7.231	7.837	8.530	9.329	10.26	11.34	12.61	14.11	15.90	20.62	27.57	38.00	53.97	78.79					
39	6.703	7.237	7.846	8.544	9.349	10.28	11.38	12.67	14.20	16.02	20.87	28.07	39.00	55.92	82.55					
40	6.707	7.243	7.855	8.557	9.368	10.31	11.42	12.73	14.28	16.14	21.12	28.57	40.00	57.90	86.43					

^a See page v for an explanation of the proper use of this table.

Table U-17
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 17%

Period	Rate of Price Increase per Period															
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	
1	0.8632	0.8718	0.8803	0.8889	0.8974	0.9060	0.9145	0.9231	0.9316	0.9402	0.9573	0.9744	0.9915	1.009	1.026	
2	1.608	1.632	1.655	1.679	1.703	1.727	1.751	1.775	1.800	1.824	1.874	1.924	1.974	2.026	2.078	
3	2.252	2.294	2.338	2.381	2.426	2.470	2.516	2.562	2.608	2.655	2.751	2.849	2.949	3.052	3.156	
4	2.807	2.872	2.938	3.006	3.074	3.144	3.215	3.288	3.361	3.436	3.591	3.750	3.915	4.086	4.263	
5	3.286	3.376	3.467	3.561	3.656	3.755	3.855	3.958	4.063	4.171	4.394	4.628	4.873	5.130	5.398	
6	3.700	3.815	3.932	4.054	4.179	4.308	4.440	4.576	4.717	4.862	5.164	5.484	5.823	6.182	6.562	
7	4.057	4.197	4.342	4.492	4.648	4.809	4.975	5.148	5.326	5.511	5.900	6.318	6.765	7.244	7.756	
8	4.366	4.531	4.703	4.882	5.068	5.262	5.464	5.675	5.894	6.121	6.606	7.130	7.698	8.314	8.981	
9	4.632	4.822	5.021	5.228	5.446	5.674	5.912	6.161	6.422	6.695	7.280	7.922	8.624	9.394	10.24	
10	4.862	5.076	5.300	5.536	5.785	6.046	6.321	6.610	6.915	7.235	7.927	8.693	9.542	10.48	11.52	
11	5.060	5.297	5.546	5.810	6.089	6.384	6.695	7.025	7.374	7.742	8.545	9.444	10.45	11.58	12.85	
12	5.231	5.489	5.763	6.053	6.362	6.690	7.038	7.408	7.801	8.219	9.137	10.18	11.35	12.69	14.20	
13	5.379	5.657	5.954	6.270	6.607	6.967	7.351	7.761	8.199	8.668	9.704	10.89	12.25	13.81	15.59	
14	5.507	5.804	6.122	6.462	6.827	7.218	7.637	8.087	8.570	9.089	10.25	11.59	13.13	14.93	17.02	
15	5.617	5.932	6.270	6.633	7.024	7.445	7.899	8.388	8.916	9.486	10.77	12.26	14.01	16.07	18.48	
16	5.712	6.043	6.400	6.785	7.201	7.651	8.138	8.666	9.238	9.858	11.26	12.92	14.89	17.21	19.98	
17	5.794	6.140	6.514	6.920	7.360	7.838	8.357	8.922	9.538	10.21	11.74	13.57	15.75	18.37	21.52	
18	5.865	6.225	6.615	7.040	7.502	8.007	8.557	9.159	9.817	10.54	12.19	14.19	16.61	19.53	23.09	
19	5.926	6.298	6.704	7.147	7.630	8.160	8.741	9.378	10.08	10.85	12.63	14.80	17.46	20.71	24.71	
20	5.979	6.363	6.782	7.241	7.745	8.299	8.908	9.579	10.32	11.14	13.05	15.40	18.30	21.90	26.37	
21	6.025	6.419	6.851	7.326	7.848	8.425	9.061	9.766	10.55	11.41	13.45	15.98	19.13	23.09	28.07	
22	6.064	6.468	6.911	7.401	7.941	8.538	9.201	9.937	10.76	11.67	13.83	16.54	19.96	24.30	29.82	
23	6.098	6.510	6.965	7.467	8.024	8.642	9.329	10.10	10.95	11.91	14.20	17.09	20.78	25.51	31.61	
24	6.127	6.547	7.012	7.526	8.098	8.735	9.446	10.24	11.14	12.14	14.55	17.63	21.60	26.74	33.44	
25	6.153	6.580	7.053	7.579	8.165	8.820	9.554	10.38	11.31	12.35	14.88	18.15	22.40	27.98	35.33	
26	6.175	6.608	7.089	7.626	8.225	8.897	9.652	10.50	11.46	12.55	15.20	18.66	23.20	29.23	37.26	
27	6.193	6.633	7.121	7.667	8.279	8.966	9.741	10.62	11.61	12.74	15.51	19.15	24.00	30.48	39.24	
28	6.210	6.654	7.150	7.704	8.327	9.029	9.823	10.72	11.75	12.92	15.81	19.64	24.78	31.75	41.27	
29	6.224	6.673	7.175	7.737	8.371	9.086	9.898	10.82	11.88	13.09	16.09	20.11	25.56	33.03	43.35	
30	6.236	6.689	7.196	7.766	8.410	9.138	9.967	10.91	12.00	13.25	16.36	20.57	26.34	34.32	45.49	
31	6.246	6.703	7.216	7.792	8.444	9.185	10.03	11.00	12.11	13.39	16.62	21.01	27.10	35.63	47.68	
32	6.255	6.716	7.233	7.816	8.476	9.227	10.09	11.07	12.21	13.53	16.86	21.45	27.86	36.94	49.93	
33	6.263	6.727	7.247	7.836	8.504	9.266	10.14	11.14	12.31	13.66	17.10	21.87	28.61	38.26	52.24	
34	6.270	6.736	7.261	7.854	8.529	9.301	10.19	11.21	12.40	13.79	17.33	22.29	29.36	39.60	54.60	
35	6.276	6.744	7.272	7.870	8.552	9.332	10.23	11.27	12.48	13.90	17.54	22.69	30.10	40.95	57.03	
36	6.281	6.751	7.282	7.885	8.572	9.361	10.27	11.33	12.56	14.01	17.75	23.08	30.84	42.30	59.52	
37	6.285	6.758	7.291	7.898	8.590	9.387	10.31	11.38	12.63	14.11	17.95	23.47	31.56	43.67	62.07	
38	6.289	6.763	7.299	7.909	8.607	9.410	10.34	11.43	12.70	14.21	18.14	23.84	32.29	45.06	64.69	
39	6.292	6.768	7.306	7.919	8.621	9.431	10.37	11.47	12.76	14.30	18.32	24.20	33.00	46.45	67.37	
40	6.295	6.772	7.312	7.928	8.635	9.451	10.40	11.51	12.82	14.38	18.50	24.56	33.71	47.86	70.12	

^a See page v for an explanation of the proper use of this table.

Table U-18
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 18%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8559	0.8644	0.8729	0.8814	0.8898	0.8983	0.9068	0.9153	0.9237	0.9322	0.9492	0.9661	0.9831	1.000	1.017					
2	1.589	1.612	1.635	1.658	1.682	1.705	1.729	1.753	1.777	1.801	1.850	1.899	1.949	2.000	2.051					
3	2.216	2.257	2.300	2.343	2.386	2.430	2.475	2.520	2.565	2.611	2.705	2.801	2.899	3.000	3.103					
4	2.752	2.816	2.880	2.946	3.013	3.081	3.151	3.221	3.293	3.366	3.517	3.672	3.833	4.000	4.172					
5	3.212	3.298	3.387	3.478	3.571	3.666	3.764	3.864	3.966	4.070	4.287	4.514	4.751	5.000	5.260					
6	3.605	3.716	3.829	3.947	4.067	4.192	4.320	4.451	4.587	4.727	5.018	5.327	5.654	6.000	6.366					
7	3.942	4.076	4.216	4.360	4.509	4.664	4.824	4.989	5.161	5.338	5.712	6.113	6.541	7.000	7.481					
8	4.230	4.388	4.553	4.724	4.902	5.088	5.281	5.482	5.691	5.909	6.371	6.871	7.413	8.000	8.635					
9	4.476	4.657	4.847	5.045	5.252	5.469	5.695	5.933	6.181	6.440	6.996	7.605	8.271	9.000	9.798					
10	4.687	4.890	5.103	5.328	5.563	5.811	6.071	6.345	6.633	6.936	7.590	8.313	9.114	10.00	10.98					
11	4.868	5.092	5.328	5.577	5.840	6.118	6.412	6.723	7.051	7.398	8.153	8.997	9.942	11.00	12.18					
12	5.023	5.266	5.523	5.797	6.087	6.394	6.721	7.068	7.437	7.829	8.687	9.658	10.76	12.00	13.41					
13	5.155	5.416	5.694	5.990	6.306	6.642	7.001	7.384	7.793	8.230	9.195	10.30	11.56	13.00	14.65					
14	5.268	5.546	5.843	6.161	6.501	6.865	7.255	7.674	8.123	8.604	9.676	10.91	12.34	14.00	15.92					
15	5.365	5.658	5.973	6.311	6.675	7.065	7.486	7.939	8.427	8.953	10.13	11.51	13.12	15.00	17.20					
16	5.448	5.756	6.087	6.444	6.829	7.245	7.695	8.181	8.708	9.278	10.57	12.09	13.88	16.00	18.51					
17	5.519	5.840	6.186	6.561	6.967	7.407	7.884	8.403	8.967	9.581	10.98	12.64	14.63	17.00	19.84					
18	5.580	5.912	6.272	6.664	7.089	7.552	8.056	8.606	9.207	9.864	11.37	13.18	15.36	18.00	21.20					
19	5.632	5.975	6.348	6.754	7.198	7.682	8.212	8.792	9.429	10.13	11.74	13.70	16.08	19.00	22.57					
20	5.677	6.029	6.414	6.834	7.295	7.799	8.353	8.962	9.633	10.37	12.09	14.20	16.80	20.00	23.97					
21	5.715	6.076	6.471	6.905	7.381	7.904	8.481	9.118	9.822	10.60	12.43	14.69	17.49	21.00	25.40					
22	5.747	6.117	6.522	6.967	7.457	7.999	8.597	9.261	9.997	10.82	12.74	15.15	18.18	22.00	26.84					
23	5.775	6.152	6.566	7.022	7.526	8.084	8.703	9.391	10.16	11.01	13.05	15.61	18.86	23.00	28.31					
24	5.799	6.182	6.604	7.070	7.586	8.160	8.798	9.510	10.31	11.20	13.33	16.04	19.52	24.00	29.81					
25	5.820	6.208	6.637	7.113	7.640	8.228	8.885	9.620	10.44	11.37	13.60	16.47	20.17	25.00	31.33					
26	5.837	6.231	6.666	7.150	7.689	8.290	8.963	9.720	10.57	11.53	13.86	16.87	20.81	26.00	32.88					
27	5.852	6.250	6.692	7.183	7.731	8.345	9.035	9.811	10.69	11.68	14.10	17.27	21.44	27.00	34.46					
28	5.865	6.267	6.714	7.212	7.769	8.395	9.099	9.895	10.80	11.82	14.34	17.65	22.06	28.00	36.06					
29	5.876	6.282	6.733	7.238	7.803	8.439	9.158	9.972	10.90	11.95	14.56	18.02	22.67	29.00	37.69					
30	5.885	6.294	6.750	7.261	7.833	8.479	9.211	10.04	10.99	12.08	14.77	18.37	23.27	30.00	39.34					
31	5.893	6.305	6.765	7.280	7.860	8.515	9.259	10.11	11.08	12.19	14.96	18.72	23.86	31.00	41.02					
32	5.900	6.315	6.778	7.298	7.884	8.548	9.303	10.17	11.15	12.30	15.15	19.05	24.44	32.00	42.74					
33	5.906	6.323	6.789	7.314	7.905	8.577	9.342	10.22	11.23	12.39	15.33	19.37	25.01	33.00	44.48					
34	5.911	6.330	6.799	7.327	7.924	8.603	9.378	10.27	11.30	12.49	15.50	19.68	25.57	34.00	46.25					
35	5.916	6.336	6.808	7.339	7.941	8.626	9.411	10.31	11.36	12.57	15.66	19.98	26.12	35.00	48.05					
36	5.919	6.341	6.815	7.350	7.956	8.647	9.440	10.35	11.41	12.65	15.81	20.26	26.66	36.00	49.88					
37	5.922	6.346	6.822	7.359	7.969	8.666	9.467	10.39	11.47	12.73	15.96	20.54	27.19	37.00	51.74					
38	5.925	6.350	6.827	7.367	7.981	8.683	9.491	10.43	11.52	12.80	16.10	20.81	27.71	38.00	53.64					
39	5.927	6.353	6.832	7.375	7.992	8.699	9.513	10.46	11.56	12.86	16.23	21.07	28.22	39.00	55.56					
40	5.929	6.356	6.837	7.381	8.001	8.712	9.533	10.49	11.60	12.92	16.35	21.33	28.73	40.00	57.52					

^a See page v for an explanation of the proper use of this table.

Table U-19
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 19%

Period	Rate of Price Increase per Period															
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	
1	0.8487	0.8571	0.8655	0.8739	0.8824	0.8908	0.8992	0.9076	0.9160	0.9244	0.9412	0.9580	0.9748	0.9916	1.008	
2	1.569	1.592	1.615	1.638	1.661	1.684	1.708	1.731	1.755	1.779	1.827	1.876	1.925	1.975	2.025	
3	2.180	2.222	2.263	2.305	2.348	2.391	2.435	2.479	2.523	2.569	2.661	2.755	2.851	2.950	3.051	
4	2.699	2.761	2.824	2.889	2.954	3.021	3.088	3.157	3.227	3.299	3.445	3.597	3.754	3.917	4.085	
5	3.140	3.224	3.310	3.398	3.489	3.581	3.676	3.773	3.872	3.974	4.184	4.404	4.634	4.875	5.127	
6	3.514	3.621	3.731	3.844	3.961	4.081	4.204	4.332	4.463	4.597	4.879	5.177	5.492	5.826	6.179	
7	3.831	3.961	4.095	4.233	4.377	4.526	4.680	4.839	5.004	5.174	5.533	5.917	6.329	6.769	7.239	
8	4.100	4.252	4.410	4.574	4.745	4.922	5.107	5.299	5.499	5.707	6.149	6.627	7.144	7.703	8.308	
9	4.329	4.502	4.682	4.871	5.069	5.275	5.491	5.717	5.953	6.200	6.728	7.306	7.939	8.630	9.387	
10	4.523	4.716	4.918	5.131	5.355	5.590	5.837	6.096	6.369	6.655	7.274	7.957	8.713	9.549	10.47	
11	4.687	4.899	5.123	5.358	5.607	5.870	6.147	6.440	6.749	7.076	7.787	8.581	9.468	10.46	11.57	
12	4.827	5.056	5.298	5.557	5.830	6.119	6.426	6.752	7.098	7.466	8.270	9.178	10.20	11.36	12.68	
13	4.946	5.191	5.452	5.730	6.026	6.342	6.678	7.036	7.418	7.825	8.725	9.751	10.92	12.26	13.79	
14	5.046	5.307	5.585	5.882	6.200	6.540	6.903	7.293	7.710	8.158	9.153	10.30	11.62	13.15	14.92	
15	5.132	5.406	5.699	6.014	6.353	6.716	7.106	7.526	7.978	8.465	9.556	10.82	12.30	14.03	16.05	
16	5.204	5.491	5.799	6.130	6.488	6.873	7.289	7.738	8.224	8.749	9.935	11.33	12.97	14.90	17.19	
17	5.266	5.563	5.885	6.232	6.607	7.013	7.453	7.930	8.449	9.012	10.29	11.81	13.62	15.77	18.35	
18	5.318	5.626	5.959	6.320	6.712	7.138	7.601	8.105	8.655	9.255	10.63	12.27	14.25	16.63	19.51	
19	5.362	5.679	6.023	6.397	6.805	7.249	7.733	8.263	8.843	9.479	10.94	12.71	14.86	17.48	20.68	
20	5.400	5.725	6.079	6.465	6.886	7.347	7.853	8.407	9.016	9.687	11.24	13.14	15.46	18.33	21.86	
21	5.432	5.764	6.127	6.524	6.959	7.436	7.960	8.537	9.175	9.878	11.52	13.54	16.05	19.16	23.05	
22	5.459	5.798	6.169	6.576	7.022	7.514	8.056	8.656	9.320	10.06	11.78	13.93	16.62	19.99	24.26	
23	5.482	5.827	6.205	6.621	7.078	7.584	8.143	8.763	9.452	10.22	12.03	14.30	17.17	20.82	25.47	
24	5.502	5.852	6.236	6.660	7.128	7.646	8.221	8.861	9.574	10.37	12.27	14.66	17.72	21.63	26.69	
25	5.518	5.873	6.263	6.694	7.172	7.702	8.291	8.949	9.685	10.51	12.49	15.00	18.24	22.44	27.92	
26	5.532	5.891	6.287	6.725	7.210	7.751	8.354	9.030	9.788	10.64	12.69	15.33	18.76	23.25	29.17	
27	5.544	5.907	6.307	6.751	7.244	7.795	8.411	9.103	9.881	10.76	12.89	15.65	19.26	24.04	30.42	
28	5.554	5.920	6.325	6.774	7.275	7.834	8.462	9.169	9.967	10.87	13.07	15.95	19.75	24.83	31.68	
29	5.563	5.931	6.340	6.794	7.301	7.869	8.508	9.239	10.05	10.97	13.24	16.23	20.23	25.62	32.96	
30	5.570	5.941	6.353	6.812	7.324	7.900	8.549	9.283	10.12	11.07	13.40	16.51	20.69	26.39	34.24	
31	5.576	5.950	6.364	6.827	7.345	7.928	8.586	9.333	10.18	11.15	13.56	16.77	21.14	27.16	35.54	
32	5.582	5.957	6.374	6.840	7.363	7.953	8.620	9.378	10.24	11.24	13.70	17.03	21.59	27.93	36.85	
33	5.586	5.963	6.383	6.852	7.379	7.975	8.649	9.418	10.30	11.31	13.84	17.27	22.02	28.68	38.17	
34	5.590	5.968	6.390	6.862	7.394	7.994	8.676	9.455	10.35	11.38	13.96	17.50	22.44	29.43	39.49	
35	5.593	5.973	6.396	6.871	7.406	8.012	8.701	9.489	10.40	11.44	14.08	17.72	22.85	30.18	40.83	
36	5.596	5.977	6.402	6.879	7.417	8.027	8.722	9.519	10.44	11.50	14.20	17.94	23.24	30.91	42.19	
37	5.598	5.980	6.407	6.886	7.427	8.041	8.742	9.547	10.48	11.56	14.30	18.14	23.63	31.65	43.55	
38	5.600	5.983	6.411	6.892	7.436	8.053	8.760	9.572	10.51	11.61	14.40	18.34	24.01	32.37	44.92	
39	5.602	5.985	6.414	6.897	7.443	8.064	8.775	9.595	10.54	11.65	14.50	18.53	24.38	33.09	46.31	
40	5.603	5.987	6.418	6.902	7.450	8.074	8.790	9.615	10.57	11.70	14.58	18.71	24.74	33.81	47.71	

^a See page v for an explanation of the proper use of this table.

Table U-20
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 20%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8417	0.8500	0.8583	0.8667	0.8750	0.8833	0.8917	0.9000	0.9083	0.9167	0.9333	0.9500	0.9667	0.9833	1.000					
2	1.550	1.573	1.595	1.618	1.641	1.664	1.687	1.710	1.733	1.757	1.804	1.853	1.901	1.950	2.000					
3	2.146	2.187	2.227	2.269	2.311	2.353	2.396	2.439	2.483	2.527	2.617	2.710	2.804	2.901	3.000					
4	2.648	2.709	2.770	2.833	2.897	2.962	3.028	3.095	3.164	3.233	3.376	3.524	3.678	3.836	4.000					
5	3.071	3.152	3.236	3.322	3.410	3.499	3.591	3.686	3.782	3.880	4.085	4.298	4.522	4.755	5.000					
6	3.426	3.529	3.636	3.746	3.858	3.975	4.094	4.217	4.344	4.474	4.746	5.033	5.338	5.660	6.000					
7	3.725	3.850	3.979	4.113	4.251	4.394	4.542	4.695	4.854	5.018	5.363	5.732	6.126	6.549	7.000					
8	3.977	4.123	4.274	4.431	4.595	4.765	4.942	5.126	5.317	5.516	5.938	6.395	6.889	7.423	8.000					
9	4.189	4.354	4.527	4.707	4.895	5.092	5.298	5.513	5.738	5.973	6.476	7.025	7.626	8.282	9.000					
10	4.367	4.551	4.744	4.946	5.158	5.382	5.616	5.862	6.120	6.392	6.977	7.624	8.338	9.128	10.00					
11	4.518	4.718	4.930	5.153	5.389	5.637	5.899	6.176	6.468	6.776	7.446	8.193	9.027	9.959	11.00					
12	4.644	4.861	5.090	5.333	5.590	5.863	6.152	6.458	6.783	7.128	7.883	8.733	9.693	10.78	12.00					
13	4.750	4.982	5.227	5.488	5.766	6.062	6.377	6.712	7.070	7.451	8.290	9.247	10.34	11.58	13.00					
14	4.840	5.084	5.345	5.623	5.921	6.238	6.578	6.941	7.330	7.746	8.671	9.734	10.96	12.37	14.00					
15	4.915	5.172	5.446	5.740	6.055	6.394	6.757	7.147	7.566	8.018	9.026	10.20	11.56	13.15	15.00					
16	4.979	5.246	5.533	5.842	6.174	6.531	6.917	7.332	7.781	8.266	9.358	10.64	12.14	13.91	16.00					
17	5.032	5.309	5.607	5.929	6.277	6.652	7.059	7.499	7.976	8.494	9.667	11.06	12.70	14.66	17.00					
18	5.077	5.363	5.671	6.005	6.367	6.760	7.186	7.649	8.153	8.703	9.956	11.45	13.25	15.40	18.00					
19	5.115	5.408	5.726	6.071	6.446	6.854	7.299	7.784	8.314	8.894	10.23	11.83	13.77	16.13	19.00					
20	5.147	5.447	5.773	6.129	6.516	6.938	7.400	7.906	8.461	9.070	10.48	12.19	14.28	16.84	20.00					
21	5.173	5.480	5.814	6.178	6.576	7.012	7.490	8.015	8.593	9.231	10.71	12.53	14.77	17.55	21.00					
22	5.196	5.508	5.849	6.221	6.629	7.077	7.570	8.114	8.714	9.378	10.93	12.85	15.24	18.24	22.00					
23	5.215	5.532	5.878	6.258	6.675	7.135	7.642	8.202	8.823	9.513	11.14	13.16	15.70	18.92	23.00					
24	5.231	5.552	5.904	6.290	6.716	7.186	7.706	8.282	8.923	9.637	11.33	13.45	16.15	19.58	24.00					
25	5.244	5.569	5.926	6.318	6.752	7.231	7.762	8.354	9.013	9.751	11.51	13.73	16.57	20.24	25.00					
26	5.256	5.584	5.945	6.343	6.783	7.271	7.813	8.419	9.095	9.855	11.67	13.99	16.99	20.89	26.00					
27	5.265	5.596	5.961	6.364	6.810	7.306	7.858	8.477	9.170	9.950	11.83	14.24	17.39	21.52	27.00					
28	5.273	5.607	5.975	6.382	6.834	7.337	7.899	8.529	9.238	10.04	11.97	14.48	17.78	22.15	28.00					
29	5.280	5.616	5.987	6.398	6.854	7.364	7.935	8.576	9.299	10.12	12.11	14.71	18.15	22.76	29.00					
30	5.286	5.623	5.997	6.411	6.873	7.388	7.967	8.618	9.355	10.19	12.23	14.92	18.51	23.37	30.00					
31	5.290	5.630	6.006	6.423	6.888	7.410	7.995	8.657	9.406	10.26	12.35	15.13	18.86	23.96	31.00					
32	5.294	5.635	6.013	6.433	6.902	7.428	8.021	8.691	9.452	10.32	12.46	15.32	19.20	24.54	32.00					
33	5.298	5.640	6.020	6.442	6.915	7.445	8.044	8.722	9.494	10.38	12.56	15.50	19.53	25.12	33.00					
34	5.301	5.644	6.025	6.450	6.925	7.460	8.064	8.750	9.532	10.43	12.66	15.68	19.84	25.68	34.00					
35	5.303	5.647	6.030	6.457	6.935	7.473	8.082	8.775	9.567	10.48	12.75	15.84	20.15	26.24	35.00					
36	5.305	5.650	6.034	6.462	6.943	7.484	8.098	8.797	9.598	10.52	12.83	16.00	20.44	26.78	36.00					
37	5.307	5.653	6.038	6.467	6.950	7.495	8.112	8.818	9.627	10.56	12.91	16.15	20.73	27.32	37.00					
38	5.308	5.655	6.041	6.472	6.956	7.504	8.125	8.836	9.652	10.60	12.98	16.29	21.00	27.85	38.00					
39	5.309	5.657	6.043	6.476	6.962	7.511	8.137	8.852	9.676	10.63	13.05	16.43	21.27	28.37	39.00					
40	5.310	5.658	6.045	6.479	6.966	7.518	8.147	8.867	9.697	10.66	13.11	16.56	21.53	28.88	40.00					

^a See page v for an explanation of the proper use of this table.

Table U-21
UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
Discount rate = 2½%

Period	Rate of Price Increase per Period															
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	
1	0.8347	0.8430	0.8512	0.8595	0.8678	0.8760	0.8843	0.8926	0.9008	0.9091	0.9256	0.9421	0.9587	0.9752	0.9917	
2	1.531	1.554	1.576	1.598	1.621	1.643	1.666	1.689	1.712	1.736	1.782	1.830	1.878	1.926	1.975	
3	2.113	2.153	2.193	2.233	2.274	2.316	2.358	2.400	2.443	2.487	2.575	2.666	2.759	2.854	2.951	
4	2.598	2.658	2.718	2.779	2.841	2.905	2.969	3.035	3.102	3.170	3.309	3.454	3.604	3.758	3.918	
5	3.004	3.083	3.165	3.248	3.333	3.421	3.510	3.601	3.695	3.791	3.989	4.196	4.413	4.640	4.877	
6	3.342	3.442	3.545	3.651	3.760	3.873	3.988	4.107	4.229	4.355	4.618	4.896	5.190	5.500	5.829	
7	3.624	3.745	3.869	3.998	4.131	4.269	4.411	4.558	4.711	4.868	5.200	5.555	5.934	6.339	6.772	
8	3.860	4.000	4.145	4.296	4.452	4.615	4.785	4.961	5.144	5.335	5.739	6.175	6.647	7.157	7.708	
9	4.057	4.214	4.379	4.552	4.731	4.919	5.116	5.321	5.535	5.759	6.238	6.760	7.331	7.955	8.636	
10	4.221	4.396	4.579	4.772	4.974	5.186	5.408	5.642	5.887	6.145	6.699	7.311	7.987	8.733	9.557	
11	4.358	4.548	4.749	4.961	5.184	5.419	5.667	5.928	6.204	6.495	7.127	7.831	8.616	9.492	10.47	
12	4.472	4.677	4.894	5.123	5.366	5.623	5.895	6.184	6.490	6.814	7.522	8.320	9.218	10.23	11.37	
13	4.568	4.786	5.017	5.263	5.524	5.802	6.097	6.412	6.747	7.103	7.888	8.781	9.796	10.95	12.27	
14	4.647	4.877	5.122	5.383	5.662	5.959	6.276	6.616	6.978	7.367	8.227	9.215	10.35	11.66	13.16	
15	4.714	4.954	5.211	5.486	5.781	6.096	6.434	6.797	7.187	7.606	8.541	9.624	10.88	12.34	14.05	
16	4.770	5.019	5.287	5.575	5.884	6.216	6.574	6.960	7.375	7.824	8.831	10.01	11.39	13.01	14.92	
17	4.816	5.074	5.352	5.651	5.974	6.322	6.698	7.105	7.545	8.022	9.100	10.37	11.88	13.66	15.79	
18	4.855	5.120	5.407	5.717	6.052	6.414	6.807	7.234	7.697	8.201	9.349	10.71	12.35	14.30	16.65	
19	4.887	5.159	5.454	5.773	6.119	6.495	6.904	7.349	7.835	8.365	9.579	11.04	12.79	14.92	17.51	
20	4.914	5.192	5.494	5.821	6.178	6.566	6.989	7.452	7.959	8.514	9.792	11.34	13.22	15.53	18.35	
21	4.936	5.220	5.528	5.863	6.229	6.628	7.065	7.544	8.070	8.649	9.989	11.63	13.64	16.12	19.19	
22	4.955	5.243	5.557	5.899	6.273	6.682	7.132	7.626	8.171	8.772	10.17	11.90	14.03	16.69	20.03	
23	4.971	5.263	5.581	5.930	6.311	6.730	7.191	7.699	8.261	8.883	10.34	12.15	14.41	17.25	20.85	
24	4.984	5.278	5.602	5.956	6.344	6.772	7.243	7.765	8.343	8.985	10.50	12.39	14.77	17.80	21.67	
25	4.995	5.293	5.620	5.979	6.373	6.808	7.289	7.823	8.416	9.077	10.64	12.61	15.12	18.34	22.48	
26	5.004	5.305	5.635	5.998	6.398	6.840	7.330	7.875	8.482	9.161	10.78	12.83	15.46	18.86	23.29	
27	5.012	5.315	5.648	6.015	6.420	6.868	7.367	7.922	8.542	9.237	10.90	13.03	15.78	19.36	24.09	
28	5.018	5.323	5.659	6.029	6.439	6.893	7.399	7.963	8.596	9.307	11.02	13.22	16.08	19.86	24.88	
29	5.023	5.331	5.669	6.042	6.455	6.915	7.427	8.000	8.644	9.370	11.12	13.39	16.38	20.34	25.67	
30	5.028	5.336	5.677	6.052	6.469	6.933	7.452	8.033	8.688	9.427	11.22	13.56	16.66	20.81	26.45	
31	5.031	5.341	5.683	6.062	6.482	6.950	7.479	8.063	8.727	9.479	11.31	13.72	16.93	21.27	27.22	
32	5.034	5.346	5.689	6.076	6.492	6.964	7.493	8.089	8.762	9.526	11.40	13.87	17.19	21.72	27.99	
33	5.037	5.349	5.694	6.076	6.502	6.977	7.511	8.112	8.794	9.569	11.47	14.01	17.44	22.16	28.75	
34	5.039	5.352	5.698	6.082	6.510	6.988	7.526	8.133	8.823	9.609	11.55	14.14	17.67	22.58	29.50	
35	5.041	5.355	5.702	6.087	6.517	6.998	7.540	8.152	8.849	9.644	11.61	14.26	17.90	23.00	30.25	
36	5.042	5.357	5.705	6.091	6.523	7.006	7.551	8.169	8.872	9.677	11.67	14.38	18.12	23.40	30.99	
37	5.044	5.359	5.707	6.095	6.528	7.014	7.562	8.184	8.893	9.706	11.73	14.49	18.33	23.80	31.73	
38	5.045	5.360	5.710	6.098	6.533	7.020	7.571	8.197	8.912	9.733	11.78	14.59	18.53	24.18	32.46	
39	5.046	5.362	5.712	6.101	6.537	7.026	7.580	8.209	8.929	9.757	11.83	14.69	18.73	24.56	33.18	
40	5.046	5.363	5.713	6.103	6.540	7.031	7.587	8.220	8.944	9.779	11.88	14.78	18.91	24.92	33.90	

^a See page v for an explanation of the proper use of this table.

Table U-22
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 22%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8279	0.8361	0.8443	0.8525	0.8607	0.8689	0.8770	0.8852	0.8934	0.9016	0.9180	0.9344	0.9508	0.9672	0.9836					
2	1.513	1.535	1.557	1.579	1.601	1.624	1.646	1.669	1.692	1.715	1.761	1.808	1.855	1.903	1.951					
3	2.081	2.119	2.159	2.199	2.239	2.280	2.321	2.363	2.405	2.448	2.535	2.623	2.714	2.808	2.903					
4	2.550	2.608	2.667	2.727	2.788	2.850	2.913	2.977	3.042	3.108	3.245	3.386	3.532	3.683	3.839					
5	2.939	3.017	3.096	3.177	3.260	3.345	3.432	3.520	3.611	3.704	3.897	4.098	4.309	4.529	4.759					
6	3.261	3.358	3.458	3.561	3.666	3.775	3.887	4.002	4.120	4.242	4.495	4.764	5.048	5.348	5.665					
7	3.528	3.644	3.764	3.888	4.016	4.149	4.286	4.428	4.574	4.726	5.045	5.386	5.750	6.140	6.556					
8	3.748	3.882	4.022	4.167	4.317	4.473	4.636	4.805	4.980	5.163	5.550	5.967	6.418	6.906	7.432					
9	3.931	4.082	4.240	4.404	4.576	4.756	4.943	5.139	5.343	5.557	6.013	6.510	7.054	7.646	8.294					
10	4.082	4.249	4.424	4.607	4.799	5.001	5.212	5.434	5.667	5.912	6.438	7.018	7.657	8.363	9.141					
11	4.207	4.388	4.579	4.780	4.991	5.214	5.449	5.696	5.957	6.232	6.828	7.492	8.232	9.056	9.975					
12	4.311	4.505	4.710	4.927	5.156	5.399	5.656	5.928	6.215	6.521	7.187	7.935	8.778	9.726	10.80					
13	4.397	4.603	4.821	5.052	5.298	5.560	5.837	6.133	6.447	6.781	7.516	8.349	9.297	10.37	11.60					
14	4.468	4.684	4.914	5.159	5.421	5.699	5.997	6.314	6.653	7.016	7.818	8.736	9.790	11.00	12.40					
15	4.527	4.752	4.993	5.251	5.526	5.821	6.136	6.475	6.838	7.227	8.095	9.098	10.26	11.61	13.18					
16	4.575	4.809	5.060	5.328	5.617	5.926	6.259	6.617	7.002	7.418	8.349	9.436	10.71	12.19	13.94					
17	4.616	4.857	5.116	5.395	5.695	6.018	6.367	6.743	7.150	7.590	8.583	9.751	11.13	12.76	14.70					
18	4.649	4.897	5.164	5.451	5.762	6.098	6.461	6.854	7.281	7.745	8.797	10.05	11.53	13.31	15.44					
19	4.677	4.930	5.204	5.499	5.820	6.167	6.543	6.953	7.399	7.885	8.994	10.32	11.92	13.84	16.17					
20	4.700	4.958	5.238	5.541	5.869	6.227	6.616	7.040	7.504	8.011	9.175	10.58	12.28	14.36	16.89					
21	4.718	4.981	5.266	5.576	5.912	6.279	6.680	7.118	7.598	8.125	9.341	10.82	12.63	14.85	17.60					
22	4.734	5.001	5.290	5.605	5.949	6.324	6.735	7.186	7.682	8.227	9.494	11.05	12.96	15.33	18.29					
23	4.747	5.017	5.311	5.631	5.981	6.364	6.784	7.247	7.757	8.320	9.633	11.26	13.27	15.80	18.98					
24	4.758	5.031	5.328	5.652	6.008	6.398	6.827	7.300	7.823	8.403	9.762	11.45	13.57	16.25	19.65					
25	4.767	5.042	5.342	5.671	6.031	6.428	6.865	7.348	7.883	8.478	9.880	11.64	13.85	16.68	20.31					
26	4.774	5.051	5.355	5.687	6.052	6.454	6.898	7.390	7.937	8.546	9.988	11.81	14.12	17.10	20.96					
27	4.780	5.059	5.365	5.700	6.069	6.476	6.927	7.427	7.984	8.607	10.09	11.97	14.38	17.51	21.60					
28	4.785	5.066	5.374	5.712	6.084	6.496	6.952	7.460	8.027	8.662	10.18	12.12	14.62	17.90	22.23					
29	4.789	5.072	5.381	5.721	6.097	6.513	6.974	7.489	8.065	8.712	10.26	12.26	14.85	18.28	22.85					
30	4.793	5.076	5.387	5.730	6.108	6.527	6.994	7.515	8.099	8.756	10.34	12.39	15.07	18.65	23.46					
31	4.796	5.080	5.393	5.737	6.118	6.540	7.011	7.538	8.130	8.797	10.41	12.51	15.28	19.00	24.06					
32	4.798	5.083	5.397	5.743	6.126	6.551	7.026	7.558	8.157	8.833	10.47	12.62	15.48	19.35	24.65					
33	4.800	5.086	5.401	5.748	6.133	6.561	7.039	7.576	8.181	8.866	10.53	12.73	15.67	19.68	25.23					
34	4.802	5.088	5.404	5.752	6.139	6.569	7.051	7.592	8.203	8.895	10.59	12.83	15.85	20.00	25.80					
35	4.803	5.090	5.407	5.756	6.144	6.577	7.061	7.606	8.222	8.922	10.64	12.92	16.02	20.31	26.36					
36	4.804	5.092	5.409	5.759	6.149	6.583	7.070	7.618	8.239	8.946	10.68	13.01	16.19	20.62	26.91					
37	4.805	5.093	5.411	5.762	6.153	6.589	7.078	7.629	8.255	8.968	10.73	13.09	16.34	20.91	27.45					
38	4.806	5.094	5.412	5.764	6.156	6.593	7.085	7.639	8.269	8.987	10.77	13.17	16.49	21.19	27.98					
39	4.806	5.095	5.414	5.766	6.159	6.597	7.091	7.648	8.281	9.005	10.80	13.24	16.63	21.46	28.51					
40	4.807	5.096	5.415	5.768	6.161	6.601	7.096	7.655	8.292	9.021	10.83	13.30	16.76	21.72	29.03					

^a See page v for an explanation of the proper use of this table.

Table U-23
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 23%

Period	Rate of Price Increase per Period															
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	
1	0.8211	0.8293	0.8374	0.8455	0.8537	0.8618	0.8699	0.8780	0.8862	0.8943	0.9106	0.9268	0.9431	0.9593	0.9756	
2	1.495	1.517	1.539	1.560	1.582	1.604	1.627	1.649	1.671	1.694	1.740	1.786	1.833	1.880	1.927	
3	2.049	2.087	2.126	2.165	2.204	2.245	2.285	2.326	2.367	2.409	2.495	2.582	2.671	2.763	2.856	
4	2.504	2.560	2.618	2.676	2.736	2.796	2.858	2.920	2.984	3.049	3.182	3.320	3.462	3.610	3.762	
5	2.877	2.952	3.029	3.108	3.189	3.271	3.356	3.442	3.531	3.621	3.808	4.004	4.208	4.422	4.646	
6	3.184	3.278	3.374	3.474	3.576	3.681	3.789	3.901	4.015	4.133	4.378	4.638	4.912	5.202	5.508	
7	3.435	3.547	3.663	3.783	3.906	4.034	4.166	4.303	4.444	4.590	4.897	5.225	5.576	5.950	6.349	
8	3.642	3.771	3.905	4.044	4.188	4.338	4.494	4.656	4.825	4.999	5.370	5.770	6.201	6.667	7.170	
9	3.812	3.956	4.107	4.265	4.429	4.600	4.780	4.966	5.162	5.365	5.800	6.274	6.792	7.356	7.971	
10	3.951	4.110	4.277	4.451	4.635	4.826	5.028	5.239	5.460	5.693	6.192	6.742	7.348	8.016	8.752	
11	4.066	4.238	4.419	4.609	4.810	5.021	5.244	5.478	5.725	5.985	6.549	7.176	7.873	8.649	9.514	
12	4.159	4.343	4.538	4.743	4.960	5.189	5.431	5.688	5.959	6.247	6.874	7.577	8.368	9.257	10.26	
13	4.237	4.431	4.637	4.856	5.088	5.334	5.595	5.872	6.167	6.481	7.170	7.950	8.835	9.840	10.98	
14	4.300	4.504	4.721	4.951	5.197	5.458	5.737	6.034	6.352	6.690	7.439	8.295	9.275	10.40	11.69	
15	4.352	4.564	4.790	5.032	5.280	5.566	5.861	6.176	6.515	6.878	7.684	8.615	9.690	10.94	12.38	
16	4.395	4.614	4.849	5.100	5.369	5.658	5.968	6.301	6.659	7.045	7.908	8.911	10.08	11.45	13.05	
17	4.430	4.656	4.898	5.158	5.437	5.738	6.062	6.411	6.788	7.195	8.111	9.186	10.45	11.94	13.71	
18	4.459	4.690	4.939	5.207	5.495	5.807	6.143	6.507	6.901	7.329	8.296	9.441	10.80	12.42	14.35	
19	4.482	4.719	4.973	5.248	5.545	5.866	6.214	6.592	7.002	7.448	8.465	9.677	11.13	12.87	14.98	
20	4.502	4.742	5.002	5.283	5.587	5.917	6.276	6.666	7.091	7.555	8.618	9.896	11.44	13.31	15.59	
21	4.518	4.762	5.026	5.312	5.623	5.961	6.329	6.731	7.170	7.651	8.758	10.10	11.73	13.73	16.18	
22	4.531	4.778	5.046	5.337	5.654	5.999	6.376	6.788	7.240	7.737	8.886	10.29	12.01	14.13	16.77	
23	4.542	4.782	5.063	5.358	5.680	6.032	6.416	6.838	7.302	7.813	9.001	10.46	12.27	14.51	17.33	
24	4.550	4.803	5.077	5.376	5.702	6.060	6.452	6.882	7.357	7.882	9.107	10.62	12.51	14.88	17.88	
25	4.558	4.812	5.089	5.391	5.722	6.084	6.482	6.921	7.406	7.943	9.203	10.77	12.74	15.24	18.42	
26	4.564	4.820	5.099	5.404	5.738	6.105	6.509	6.955	7.449	7.998	9.291	10.91	12.96	15.58	18.95	
27	4.568	4.826	5.107	5.415	5.752	6.123	6.532	6.985	7.488	8.047	9.370	11.04	13.17	15.90	19.46	
28	4.572	4.831	5.114	5.424	5.764	6.138	6.552	7.011	7.522	8.091	9.443	11.16	13.36	16.22	19.96	
29	4.576	4.836	5.120	5.432	5.774	6.152	6.570	7.034	7.552	8.130	9.509	11.27	13.54	16.52	20.45	
30	4.578	4.839	5.125	5.438	5.783	6.163	6.585	7.054	7.578	8.165	9.569	11.37	13.71	16.80	20.93	
31	4.581	4.842	5.129	5.444	5.790	6.173	6.599	7.072	7.602	8.196	9.624	11.47	13.88	17.08	21.40	
32	4.583	4.845	5.132	5.448	5.796	6.182	6.610	7.088	7.623	8.224	9.674	11.55	14.03	17.35	21.85	
33	4.584	4.847	5.135	5.452	5.802	6.189	6.620	7.101	7.641	8.249	9.719	11.63	14.17	17.60	22.29	
34	4.585	4.849	5.138	5.455	5.806	6.196	6.629	7.114	7.658	8.272	9.761	11.71	14.31	17.84	22.72	
35	4.586	4.850	5.140	5.458	5.810	6.201	6.637	7.124	7.672	8.292	9.798	11.78	14.44	18.08	23.15	
36	4.587	4.851	5.141	5.461	5.814	6.206	6.643	7.133	7.685	8.310	9.833	11.85	14.56	18.30	23.56	
37	4.588	4.852	5.143	5.463	5.817	6.210	6.649	7.141	7.697	8.326	9.864	11.91	14.68	18.52	23.96	
38	4.588	4.853	5.144	5.464	5.819	6.213	6.654	7.149	7.707	8.340	9.892	11.96	14.78	18.72	24.35	
39	4.589	4.854	5.145	5.466	5.821	6.216	6.658	7.155	7.716	8.353	9.918	12.01	14.89	18.92	24.73	
40	4.589	4.854	5.146	5.467	5.823	6.219	6.662	7.160	7.724	8.364	9.942	12.06	14.98	19.11	25.10	

^a See page v for an explanation of the proper use of this table.

Table U-24
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 24%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8145	0.8226	0.8306	0.8387	0.8468	0.8548	0.8629	0.8710	0.8790	0.8871	0.9032	0.9194	0.9355	0.9516	0.9677					
2	1.478	1.499	1.521	1.542	1.564	1.586	1.608	1.630	1.652	1.674	1.719	1.765	1.811	1.857	1.904					
3	2.018	2.056	2.094	2.132	2.171	2.210	2.250	2.290	2.331	2.372	2.456	2.542	2.629	2.719	2.811					
4	2.458	2.514	2.570	2.627	2.685	2.744	2.804	2.866	2.928	2.991	3.121	3.256	3.395	3.539	3.688					
5	2.817	2.890	2.965	3.042	3.120	3.201	3.283	3.367	3.453	3.541	3.723	3.913	4.112	4.319	4.536					
6	3.109	3.200	3.294	3.390	3.489	3.591	3.696	3.803	3.914	4.028	4.266	4.517	4.782	5.062	5.358					
7	3.347	3.455	3.567	3.682	3.801	3.925	4.052	4.184	4.320	4.460	4.756	5.072	5.409	5.769	6.153					
8	3.541	3.664	3.793	3.927	4.066	4.210	4.359	4.515	4.676	4.844	5.199	5.582	5.995	6.441	6.922					
9	3.698	3.837	3.981	4.132	4.289	4.453	4.625	4.803	4.990	5.184	5.599	6.051	6.544	7.081	7.666					
10	3.827	3.979	4.138	4.304	4.479	4.662	4.853	5.054	5.265	5.486	5.960	6.483	7.057	7.690	8.387					
11	3.932	4.095	4.268	4.449	4.639	4.840	5.051	5.273	5.507	5.754	6.287	6.879	7.537	8.270	9.084					
12	4.017	4.191	4.376	4.570	4.775	4.992	5.221	5.464	5.720	5.991	6.582	7.244	7.987	8.821	9.759					
13	4.086	4.270	4.465	4.672	4.890	5.122	5.368	5.630	5.907	6.202	6.848	7.579	8.407	9.346	10.41					
14	4.143	4.335	4.540	4.757	4.988	5.234	5.495	5.774	6.072	6.389	7.088	7.887	8.800	9.845	11.04					
15	4.189	4.389	4.601	4.828	5.070	5.329	5.605	5.900	6.216	6.554	7.306	8.170	9.168	10.32	11.66					
16	4.226	4.433	4.653	4.888	5.140	5.410	5.699	6.010	6.343	6.702	7.506	8.431	9.512	10.77	12.25					
17	4.257	4.469	4.696	4.939	5.199	5.480	5.781	6.105	6.455	6.832	7.679	8.670	9.834	11.20	12.82					
18	4.282	4.499	4.731	4.981	5.249	5.539	5.851	6.189	6.553	6.948	7.839	8.890	10.13	11.61	13.37					
19	4.302	4.523	4.760	5.016	5.292	5.590	5.912	6.261	6.639	7.050	7.984	9.093	10.42	12.00	13.91					
20	4.319	4.543	4.785	5.046	5.328	5.633	5.964	6.324	6.715	7.142	8.114	9.279	10.68	12.37	14.43					
21	4.332	4.560	4.805	5.071	5.358	5.670	6.010	6.379	6.782	7.222	8.232	9.450	10.93	12.73	14.93					
22	4.343	4.573	4.822	5.091	5.384	5.702	6.049	6.427	6.841	7.294	8.339	9.607	11.16	13.06	15.42					
23	4.352	4.584	4.836	5.109	5.406	5.729	6.082	6.469	6.892	7.358	8.435	9.752	11.37	13.38	15.89					
24	4.359	4.594	4.848	5.124	5.424	5.752	6.111	6.505	6.937	7.414	8.522	9.885	11.57	13.69	16.34					
25	4.365	4.601	4.857	5.136	5.440	5.772	6.136	6.537	6.977	7.464	8.601	10.01	11.76	13.98	16.78					
26	4.370	4.607	4.865	5.146	5.453	5.789	6.158	6.564	7.012	7.508	8.672	10.12	11.94	14.25	17.21					
27	4.374	4.613	4.872	5.155	5.464	5.804	6.177	6.588	7.043	7.548	8.736	10.22	12.10	14.51	17.62					
28	4.377	4.617	4.878	5.162	5.474	5.816	6.193	6.609	7.070	7.583	8.793	10.32	12.26	14.76	18.02					
29	4.380	4.620	4.882	5.168	5.482	5.827	6.207	6.627	7.094	7.614	8.846	10.40	12.40	15.00	18.41					
30	4.382	4.623	4.886	5.173	5.489	5.836	6.219	6.643	7.115	7.641	8.893	10.49	12.54	15.23	18.78					
31	4.384	4.625	4.889	5.178	5.494	5.843	6.229	6.657	7.133	7.666	8.935	10.56	12.67	15.44	19.14					
32	4.385	4.627	4.892	5.181	5.499	5.850	6.238	6.669	7.149	7.687	8.974	10.63	12.78	15.64	19.49					
33	4.386	4.629	4.894	5.184	5.503	5.856	6.246	6.679	7.164	7.706	9.009	10.69	12.89	15.84	19.83					
34	4.387	4.630	4.896	5.187	5.507	5.860	6.252	6.688	7.176	7.723	9.040	10.75	13.00	16.02	20.16					
35	4.388	4.631	4.897	5.189	5.510	5.865	6.258	6.696	7.187	7.738	9.069	10.80	13.10	16.20	20.48					
36	4.389	4.632	4.899	5.191	5.512	5.868	6.263	6.703	7.197	7.752	9.094	10.85	13.19	16.37	20.79					
37	4.389	4.633	4.900	5.192	5.515	5.871	6.267	6.709	7.205	7.764	9.117	10.89	13.27	16.53	21.08					
38	4.389	4.634	4.901	5.193	5.516	5.874	6.271	6.715	7.213	7.774	9.138	10.93	13.35	16.68	21.37					
39	4.390	4.634	4.901	5.195	5.518	5.876	6.274	6.719	7.219	7.784	9.157	10.97	13.42	16.82	21.65					
40	4.390	4.634	4.902	5.195	5.519	5.878	6.277	6.723	7.225	7.792	9.174	11.01	13.49	16.96	21.92					

^a See page v for an explanation of the proper use of this table.

Table U-25
 UNIFORM PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 25%

Period	Rate of Price Increase per Period															
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	
1	0.8080	0.8160	0.8240	0.8320	0.8400	0.8480	0.8560	0.8640	0.8720	0.8800	0.8960	0.9120	0.9280	0.9440	0.9600	
2	1.461	1.482	1.503	1.524	1.546	1.567	1.589	1.610	1.632	1.654	1.699	1.744	1.789	1.835	1.882	
3	1.988	2.025	2.062	2.100	2.138	2.177	2.216	2.255	2.295	2.336	2.418	2.502	2.588	2.676	2.766	
4	2.415	2.469	2.523	2.579	2.636	2.694	2.753	2.813	2.874	2.936	3.063	3.194	3.330	3.470	3.616	
5	2.759	2.830	2.903	2.978	3.056	3.133	3.212	3.294	3.378	3.463	3.640	3.825	4.018	4.220	4.431	
6	3.037	3.126	3.216	3.310	3.406	3.504	3.606	3.710	3.817	3.928	4.158	4.400	4.657	4.928	5.214	
7	3.262	3.366	3.474	3.586	3.701	3.820	3.943	4.070	4.201	4.336	4.621	4.925	5.250	5.596	5.965	
8	3.444	3.563	3.687	3.815	3.949	4.087	4.231	4.380	4.535	4.696	5.037	5.404	5.800	6.226	6.687	
9	3.591	3.723	3.862	4.006	4.157	4.314	4.478	4.648	4.827	5.012	5.409	5.840	6.310	6.822	7.379	
10	3.709	3.854	4.006	4.165	4.332	4.506	4.689	4.880	5.081	5.291	5.742	6.238	6.784	7.384	8.044	
11	3.805	3.961	4.125	4.297	4.479	4.669	4.870	5.081	5.302	5.536	6.041	6.601	7.223	7.914	8.682	
12	3.882	4.048	4.223	4.408	4.602	4.808	5.024	5.254	5.496	5.752	6.309	6.932	7.631	8.415	9.295	
13	3.945	4.119	4.304	4.499	4.706	4.925	5.157	5.403	5.664	5.942	6.549	7.234	8.010	8.888	9.883	
14	3.996	4.177	4.370	4.575	4.793	5.024	5.270	5.532	5.811	6.109	6.764	7.510	8.361	9.334	10.45	
15	4.036	4.225	4.425	4.639	4.866	5.109	5.367	5.644	5.939	6.256	6.956	7.761	8.687	9.755	10.99	
16	4.069	4.263	4.470	4.691	4.927	5.180	5.450	5.740	6.051	6.385	7.129	7.990	8.990	10.15	11.51	
17	4.096	4.295	4.508	4.735	4.979	5.241	5.522	5.824	6.149	6.499	7.283	8.199	9.270	10.53	12.01	
18	4.118	4.321	4.538	4.772	5.022	5.292	5.583	5.896	6.234	6.599	7.422	8.389	9.531	10.88	12.49	
19	4.135	4.342	4.564	4.802	5.059	5.336	5.635	5.958	6.308	6.687	7.546	8.563	9.773	11.22	12.95	
20	4.149	4.359	4.584	4.827	5.089	5.373	5.679	6.012	6.372	6.765	7.657	8.722	9.997	11.53	13.39	
21	4.160	4.373	4.601	4.848	5.115	5.404	5.717	6.058	6.429	6.833	7.757	8.866	10.21	11.83	13.82	
22	4.170	4.384	4.616	4.866	5.137	5.431	5.750	6.098	6.478	6.893	7.846	8.998	10.40	12.11	14.22	
23	4.177	4.394	4.627	4.880	5.155	5.453	5.778	6.133	6.521	6.946	7.926	9.118	10.58	12.38	14.61	
24	4.183	4.401	4.637	4.892	5.170	5.472	5.802	6.163	6.558	6.992	7.998	9.228	10.74	12.63	14.99	
25	4.188	4.407	4.645	4.903	5.183	5.488	5.823	6.189	6.591	7.033	8.062	9.328	10.90	12.87	15.35	
26	4.192	4.412	4.651	4.911	5.194	5.502	5.840	6.211	6.619	7.069	8.120	9.419	11.04	13.09	15.70	
27	4.195	4.416	4.657	4.918	5.203	5.514	5.855	6.230	6.644	7.101	8.171	9.502	11.17	13.30	16.03	
28	4.198	4.420	4.661	4.924	5.210	5.524	5.868	6.247	6.665	7.129	8.217	9.578	11.30	13.50	16.35	
29	4.200	4.423	4.665	4.928	5.217	5.532	5.879	6.261	6.684	7.153	8.259	9.647	11.41	13.69	16.65	
30	4.201	4.425	4.668	4.932	5.222	5.539	5.888	6.274	6.701	7.175	8.296	9.710	11.52	13.87	16.95	
31	4.203	4.427	4.670	4.936	5.226	5.545	5.896	6.285	6.715	7.194	8.329	9.767	11.62	14.03	17.23	
32	4.204	4.428	4.672	4.939	5.230	5.550	5.903	6.294	6.727	7.211	8.359	9.820	11.71	14.19	17.50	
33	4.205	4.429	4.674	4.941	5.233	5.555	5.909	6.302	6.738	7.225	8.386	9.868	11.79	14.34	17.76	
34	4.205	4.430	4.675	4.943	5.236	5.558	5.914	6.309	6.748	7.238	8.409	9.911	11.87	14.48	18.01	
35	4.206	4.431	4.676	4.944	5.238	5.562	5.919	6.315	6.756	7.250	8.431	9.951	11.95	14.61	18.25	
36	4.207	4.432	4.677	4.946	5.240	5.564	5.922	6.320	6.763	7.260	8.450	9.988	12.01	14.74	18.48	
37	4.207	4.432	4.678	4.947	5.242	5.566	5.926	6.324	6.770	7.269	8.467	10.02	12.08	14.86	18.70	
38	4.207	4.433	4.679	4.948	5.243	5.568	5.928	6.328	6.775	7.276	8.483	10.05	12.14	14.97	18.91	
39	4.207	4.433	4.679	4.949	5.244	5.570	5.931	6.332	6.780	7.283	8.496	10.08	12.19	15.08	19.12	
40	4.208	4.433	4.680	4.949	5.245	5.571	5.933	6.335	6.784	7.289	8.509	10.10	12.24	15.18	19.31	

^a See page v for an explanation of the proper use of this table.

Table S-1
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 1%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	1.000	1.010	1.020	1.030	1.040	1.050	1.059	1.069	1.079	1.089	1.109	1.129	1.149	1.168	1.188					
2	1.000	1.020	1.040	1.060	1.081	1.101	1.122	1.143	1.165	1.186	1.230	1.274	1.319	1.365	1.412					
3	1.000	1.030	1.061	1.092	1.124	1.156	1.189	1.223	1.257	1.292	1.364	1.438	1.515	1.595	1.677					
4	1.000	1.040	1.082	1.124	1.168	1.213	1.260	1.307	1.357	1.407	1.512	1.623	1.740	1.863	1.993					
5	1.000	1.050	1.103	1.158	1.214	1.273	1.334	1.398	1.464	1.532	1.677	1.832	1.998	2.177	2.368					
6	1.000	1.061	1.125	1.192	1.262	1.336	1.414	1.495	1.580	1.669	1.859	2.068	2.295	2.543	2.813					
7	1.000	1.071	1.147	1.227	1.312	1.402	1.498	1.599	1.705	1.818	2.062	2.334	2.636	2.971	3.342					
8	1.000	1.082	1.170	1.264	1.364	1.472	1.587	1.709	1.840	1.980	2.287	2.634	3.028	3.471	3.971					
9	1.000	1.093	1.193	1.301	1.418	1.545	1.681	1.828	1.986	2.156	2.536	2.973	3.477	4.056	4.718					
10	1.000	1.104	1.217	1.340	1.475	1.621	1.781	1.954	2.143	2.348	2.812	3.356	3.994	4.738	5.605					
11	1.000	1.114	1.241	1.380	1.533	1.701	1.887	2.090	2.313	2.557	3.118	3.788	4.587	5.536	6.660					
12	1.000	1.125	1.265	1.421	1.594	1.786	1.999	2.235	2.496	2.785	3.457	4.276	5.268	6.467	7.913					
13	1.000	1.137	1.290	1.463	1.657	1.874	2.117	2.390	2.694	3.033	3.834	4.826	6.050	7.556	9.401					
14	1.000	1.148	1.316	1.506	1.722	1.967	2.243	2.555	2.907	3.304	4.252	5.447	6.949	8.828	11.117					
15	1.000	1.159	1.342	1.551	1.791	2.064	2.376	2.732	3.137	3.598	4.715	6.148	7.981	10.31	13.27					
16	1.000	1.171	1.369	1.597	1.862	2.166	2.518	2.922	3.386	3.919	5.228	6.940	9.166	12.05	15.77					
17	1.000	1.182	1.386	1.645	1.935	2.274	2.667	3.124	3.654	4.268	5.798	7.833	10.53	14.08	18.73					
18	1.000	1.194	1.423	1.694	2.012	2.386	2.826	3.341	3.944	4.648	6.428	8.841	12.09	16.45	22.26					
19	1.000	1.206	1.451	1.744	2.092	2.504	2.994	3.572	4.256	5.062	7.129	9.979	13.89	19.22	26.44					
20	1.000	1.218	1.480	1.796	2.174	2.628	3.171	3.820	4.593	5.513	7.906	11.26	15.95	22.45	31.42					
21	1.000	1.230	1.509	1.849	2.261	2.759	3.350	4.085	4.957	6.005	8.767	12.71	18.32	26.23	37.33					
22	1.000	1.242	1.539	1.904	2.350	2.895	3.558	4.368	5.350	6.540	9.721	14.35	21.04	30.64	44.35					
23	1.000	1.254	1.570	1.961	2.443	3.038	3.771	4.670	5.773	7.123	10.78	16.20	24.16	35.80	52.70					
24	1.000	1.267	1.601	2.019	2.540	3.189	3.995	4.994	6.231	7.757	11.95	18.28	27.75	41.83	62.61					
25	1.000	1.279	1.633	2.079	2.641	3.347	4.232	5.340	6.724	8.449	13.26	20.63	31.87	48.87	74.39					
26	1.000	1.292	1.665	2.140	2.745	3.512	4.484	5.710	7.257	9.201	14.70	23.29	36.61	57.09	88.38					
27	1.000	1.305	1.698	2.204	2.854	3.686	4.750	6.106	7.831	10.02	16.30	26.29	42.04	66.70	105.0					
28	1.000	1.318	1.732	2.270	2.967	3.869	5.032	6.529	8.452	10.91	18.08	29.67	48.29	77.93	124.8					
29	1.000	1.331	1.766	2.337	3.084	4.060	5.331	6.982	9.121	11.89	20.04	33.49	55.46	91.05	148.2					
30	1.000	1.344	1.801	2.406	3.207	4.261	5.648	7.466	9.844	12.95	22.23	37.80	63.69	106.4	176.1					
31	1.000	1.357	1.837	2.478	3.334	4.472	5.983	7.983	10.62	14.10	24.65	42.67	73.15	124.3	209.2					
32	1.000	1.371	1.873	2.551	3.466	4.694	6.339	8.536	11.46	15.36	27.33	48.16	84.02	145.2	248.6					
33	1.000	1.384	1.910	2.627	3.603	4.926	6.715	9.128	12.37	16.72	30.31	54.36	96.50	169.6	295.4					
34	1.000	1.398	1.948	2.705	3.745	5.170	7.114	9.761	13.35	18.21	33.61	61.35	110.8	198.2	350.9					
35	1.000	1.412	1.986	2.786	3.894	5.426	7.537	10.44	14.41	19.84	37.27	69.25	127.3	231.5	417.0					
36	1.000	1.426	2.026	2.868	4.048	5.694	7.985	11.16	15.55	21.61	41.33	78.16	146.2	270.5	495.4					
37	1.000	1.440	2.066	2.954	4.208	5.976	8.459	11.93	16.78	23.53	45.83	88.22	167.9	316.0	588.6					
38	1.000	1.454	2.107	3.041	4.375	6.272	8.961	12.76	18.11	25.63	50.82	99.58	192.8	369.2	699.3					
39	1.000	1.468	2.148	3.132	4.548	6.583	9.494	13.65	19.55	27.91	56.36	112.4	221.5	431.4	830.9					
40	1.000	1.483	2.191	3.225	4.728	6.908	10.06	14.59	21.10	30.40	62.50	126.9	254.4	504.0	987.2					

^a See page vi for an explanation of the proper use of this table.

Table S-2
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 2%

Period	1Z	2Z	3Z	4Z	5Z	6Z	7Z	8Z	9Z	10Z	12Z	14Z	16Z	18Z	20Z
1	0.9902	1.000	1.010	1.020	1.029	1.039	1.049	1.059	1.069	1.078	1.098	1.118	1.137	1.157	1.176
2	0.9805	1.000	1.020	1.040	1.060	1.080	1.100	1.121	1.142	1.163	1.206	1.249	1.293	1.338	1.384
3	0.9709	1.000	1.030	1.060	1.091	1.122	1.154	1.187	1.220	1.254	1.324	1.396	1.471	1.548	1.628
4	0.9614	1.000	1.040	1.081	1.123	1.166	1.211	1.257	1.304	1.353	1.454	1.560	1.673	1.791	1.916
5	0.9519	1.000	1.050	1.102	1.156	1.212	1.270	1.331	1.394	1.459	1.596	1.744	1.902	2.072	2.254
6	0.9426	1.000	1.060	1.124	1.190	1.260	1.333	1.409	1.489	1.573	1.753	1.949	2.163	2.397	2.651
7	0.9334	1.000	1.071	1.146	1.225	1.309	1.398	1.492	1.591	1.696	1.925	2.178	2.460	2.773	3.118
8	0.9242	1.000	1.081	1.168	1.261	1.360	1.466	1.580	1.701	1.830	2.113	2.435	2.798	3.208	3.670
9	0.9151	1.000	1.092	1.191	1.298	1.414	1.538	1.673	1.817	1.973	2.320	2.721	3.182	3.711	4.317
10	0.9062	1.000	1.102	1.214	1.336	1.469	1.614	1.771	1.942	2.128	2.548	3.041	3.619	4.294	5.079
11	0.8973	1.000	1.113	1.238	1.376	1.527	1.693	1.875	2.075	2.295	2.798	3.399	4.116	4.967	5.976
12	0.8885	1.000	1.124	1.262	1.416	1.587	1.776	1.986	2.218	2.475	3.072	3.799	4.681	5.746	7.030
13	0.8798	1.000	1.135	1.287	1.458	1.649	1.863	2.102	2.370	2.669	3.373	4.246	5.323	6.648	8.271
14	0.8712	1.000	1.146	1.312	1.501	1.713	1.954	2.226	2.533	2.878	3.704	4.745	6.054	7.690	9.731
15	0.8626	1.000	1.158	1.338	1.545	1.781	2.050	2.357	2.706	3.104	4.067	5.304	6.884	8.897	11.445
16	0.8542	1.000	1.169	1.364	1.590	1.851	2.150	2.496	2.892	3.347	4.466	5.928	7.828	10.29	13.47
17	0.8458	1.000	1.180	1.391	1.637	1.923	2.256	2.642	3.091	3.610	4.903	6.625	8.904	11.91	15.84
18	0.8375	1.000	1.192	1.418	1.685	1.998	2.366	2.798	3.303	3.893	5.384	7.404	10.13	13.77	18.64
19	0.8293	1.000	1.204	1.446	1.735	2.077	2.482	2.962	3.529	4.198	5.912	8.275	11.52	15.94	21.93
20	0.8212	1.000	1.215	1.475	1.786	2.158	2.604	3.137	3.772	4.527	6.492	9.249	13.10	18.43	25.80
21	0.8131	1.000	1.227	1.503	1.838	2.243	2.732	3.321	4.030	4.883	7.128	10.34	14.89	21.33	30.35
22	0.8051	1.000	1.239	1.533	1.892	2.331	2.866	3.517	4.307	5.265	7.827	11.55	16.94	24.67	35.71
23	0.7972	1.000	1.252	1.563	1.948	2.422	3.006	3.723	4.603	5.678	8.594	12.91	19.26	28.54	42.01
24	0.7894	1.000	1.264	1.594	2.005	2.517	3.154	3.942	4.918	6.124	9.437	14.43	21.91	33.02	49.42
25	0.7817	1.000	1.276	1.625	2.064	2.616	3.308	4.174	5.256	6.604	10.36	16.13	24.91	38.20	58.15
26	0.7740	1.000	1.289	1.657	2.125	2.719	3.470	4.420	5.617	7.122	11.38	18.03	28.33	44.19	68.41
27	0.7664	1.000	1.301	1.689	2.187	2.825	3.640	4.680	6.002	7.681	12.49	20.15	32.22	51.12	80.48
28	0.7589	1.000	1.314	1.722	2.252	2.936	3.819	4.955	6.414	8.283	13.72	22.52	36.65	59.14	94.68
29	0.7515	1.000	1.327	1.756	2.318	3.051	4.006	5.247	6.854	8.933	15.06	25.17	41.68	68.42	111.4
30	0.7441	1.000	1.340	1.791	2.386	3.171	4.203	5.555	7.325	9.633	16.54	28.13	47.40	79.15	131.0
31	0.7368	1.000	1.353	1.826	2.456	3.295	4.409	5.882	7.827	10.39	18.16	31.44	53.90	91.57	154.2
32	0.7296	1.000	1.366	1.861	2.528	3.424	4.625	6.228	8.365	11.20	19.94	35.14	61.30	105.9	181.4
33	0.7224	1.000	1.380	1.898	2.603	3.559	4.851	6.594	8.939	12.08	21.90	39.27	69.71	122.5	213.4
34	0.7154	1.000	1.393	1.935	2.679	3.698	5.089	6.982	9.552	13.03	24.04	43.89	78.28	141.8	251.0
35	0.7083	1.000	1.407	1.973	2.758	3.843	5.339	7.393	10.21	14.05	26.40	49.05	90.16	164.0	295.4
36	0.7014	1.000	1.421	2.012	2.839	3.994	5.600	7.828	10.91	15.15	28.99	54.82	102.5	189.7	347.5
37	0.6945	1.000	1.435	2.051	2.923	4.151	5.875	8.288	11.66	16.34	31.83	61.27	116.6	219.5	408.8
38	0.6877	1.000	1.449	2.092	3.009	4.313	6.163	8.776	12.46	17.62	34.95	68.48	132.6	253.9	480.9
39	0.6810	1.000	1.463	2.133	3.097	4.483	6.465	9.292	13.31	19.01	38.38	76.54	150.8	293.8	565.6
40	0.6743	1.000	1.477	2.174	3.188	4.658	6.782	9.839	14.23	20.50	42.14	85.54	171.5	339.8	665.6

^a See page vi for an explanation of the proper use of this table.

Table S-3
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 3%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9806	0.9903	1.000	1.010	1.019	1.029	1.039	1.049	1.058	1.068	1.087	1.107	1.126	1.146	1.165					
2	0.9615	0.9807	1.000	1.020	1.039	1.059	1.079	1.099	1.120	1.141	1.182	1.225	1.268	1.312	1.357					
3	0.9429	0.9712	1.000	1.029	1.059	1.090	1.121	1.153	1.185	1.218	1.286	1.356	1.428	1.504	1.581					
4	0.9246	0.9617	1.000	1.039	1.080	1.122	1.165	1.209	1.254	1.301	1.398	1.501	1.609	1.723	1.842					
5	0.9066	0.9524	1.000	1.049	1.101	1.154	1.210	1.267	1.327	1.389	1.520	1.661	1.812	1.973	2.146					
6	0.8890	0.9431	1.000	1.060	1.122	1.188	1.257	1.329	1.405	1.484	1.653	1.838	2.040	2.261	2.501					
7	0.8717	0.9340	1.000	1.070	1.144	1.223	1.306	1.393	1.486	1.584	1.797	2.035	2.298	2.590	2.913					
8	0.8548	0.9249	1.000	1.080	1.166	1.258	1.356	1.461	1.573	1.692	1.955	2.252	2.588	2.967	3.394					
9	0.8382	0.9159	1.000	1.091	1.189	1.295	1.409	1.532	1.665	1.807	2.125	2.492	2.915	3.399	3.955					
10	0.8219	0.9070	1.000	1.101	1.212	1.333	1.464	1.606	1.762	1.930	2.311	2.759	3.283	3.894	4.607					
11	0.8060	0.8982	1.000	1.112	1.236	1.371	1.521	1.684	1.864	2.061	2.513	3.053	3.697	4.462	5.368					
12	0.7903	0.8895	1.000	1.123	1.260	1.411	1.580	1.766	1.973	2.201	2.733	3.379	4.163	5.111	6.254					
13	0.7750	0.8809	1.000	1.134	1.284	1.452	1.641	1.852	2.088	2.351	2.971	3.740	4.689	5.856	7.286					
14	0.7599	0.8723	1.000	1.145	1.309	1.495	1.705	1.942	2.209	2.511	3.231	4.139	5.281	6.709	8.488					
15	0.7452	0.8639	1.000	1.156	1.334	1.538	1.771	2.036	2.338	2.681	3.513	4.582	5.947	7.686	9.889					
16	0.7307	0.8555	1.000	1.167	1.360	1.583	1.840	2.135	2.474	2.863	3.820	5.071	6.698	8.805	11.52					
17	0.7165	0.8472	1.000	1.179	1.387	1.629	1.911	2.239	2.618	3.058	4.154	5.612	7.543	10.09	13.42					
18	0.7026	0.8389	1.000	1.190	1.414	1.677	1.985	2.347	2.771	3.266	4.517	6.212	8.495	11.56	15.64					
19	0.6890	0.8308	1.000	1.202	1.441	1.725	2.062	2.461	2.932	3.488	4.912	6.875	9.567	13.24	18.22					
20	0.6756	0.8227	1.000	1.213	1.469	1.776	2.143	2.581	3.103	3.725	5.341	7.609	10.77	15.17	21.23					
21	0.6625	0.8147	1.000	1.225	1.498	1.827	2.226	2.706	3.284	3.978	5.808	8.422	12.13	17.38	24.73					
22	0.6496	0.8068	1.000	1.237	1.527	1.881	2.312	2.837	3.475	4.248	6.315	9.322	13.67	19.91	28.81					
23	0.6370	0.7990	1.000	1.249	1.556	1.935	2.402	2.975	3.678	4.537	6.867	10.32	15.39	22.81	33.57					
24	0.6246	0.7912	1.000	1.261	1.587	1.992	2.495	3.119	3.892	4.845	7.467	11.42	17.33	26.13	39.11					
25	0.6125	0.7836	1.000	1.273	1.617	2.050	2.592	3.271	4.118	5.175	8.119	12.64	19.52	29.93	45.56					
26	0.6006	0.7760	1.000	1.286	1.649	2.110	2.693	3.430	4.358	5.526	8.829	13.99	21.99	34.29	53.08					
27	0.5889	0.7684	1.000	1.298	1.681	2.171	2.797	3.596	4.612	5.902	9.600	15.48	24.76	39.28	61.84					
28	0.5775	0.7610	1.000	1.311	1.713	2.234	2.906	3.771	4.881	6.303	10.44	17.14	27.89	45.00	72.05					
29	0.5663	0.7536	1.000	1.323	1.747	2.299	3.019	3.954	5.165	6.731	11.35	18.97	31.41	51.56	83.94					
30	0.5553	0.7463	1.000	1.336	1.781	2.366	3.136	4.146	5.466	7.189	12.34	20.99	35.37	59.07	97.80					
31	0.5445	0.7390	1.000	1.349	1.815	2.435	3.258	4.347	5.785	7.678	13.42	23.23	39.83	67.67	113.9					
32	0.5339	0.7318	1.000	1.362	1.850	2.506	3.384	4.558	6.121	8.199	14.59	25.71	44.86	77.52	132.7					
33	0.5236	0.7247	1.000	1.376	1.886	2.579	3.516	4.779	6.478	8.757	15.87	28.46	50.52	88.81	154.7					
34	0.5134	0.7177	1.000	1.389	1.923	2.654	3.652	5.011	6.855	9.352	17.26	31.50	56.90	101.7	180.2					
35	0.5034	0.7107	1.000	1.402	1.960	2.732	3.794	5.254	7.255	9.987	18.76	34.86	64.08	116.6	209.9					
36	0.4937	0.7038	1.000	1.416	1.998	2.811	3.942	5.510	7.677	10.67	20.40	38.59	72.17	133.5	244.6					
37	0.4841	0.6970	1.000	1.430	2.037	2.893	4.095	5.777	8.125	11.39	22.19	42.71	81.28	153.0	284.9					
38	0.4747	0.6902	1.000	1.444	2.077	2.977	4.254	6.057	8.598	12.16	24.13	47.27	91.54	175.3	332.0					
39	0.4655	0.6835	1.000	1.458	2.117	3.064	4.419	6.352	9.099	12.99	26.23	52.32	103.1	200.8	386.7					
40	0.4564	0.6769	1.000	1.472	2.158	3.153	4.591	6.660	9.629	13.87	28.53	57.90	116.1	230.0	450.6					

^a See page vi for an explanation of the proper use of this table.

Table S-4
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 4%

Period	Rate of Price Increase per Period															
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	
1	0.9712	0.9808	0.9904	1.000	1.010	1.019	1.029	1.038	1.048	1.058	1.077	1.096	1.115	1.135	1.154	
2	0.9431	0.9618	0.9809	1.000	1.019	1.039	1.059	1.078	1.098	1.119	1.160	1.202	1.244	1.287	1.331	
3	0.9159	0.9434	0.9714	1.000	1.029	1.059	1.089	1.120	1.151	1.183	1.249	1.317	1.388	1.461	1.536	
4	0.8895	0.9253	0.9621	1.000	1.039	1.079	1.120	1.163	1.207	1.252	1.345	1.444	1.548	1.657	1.773	
5	0.8639	0.9075	0.9528	1.000	1.049	1.100	1.153	1.208	1.265	1.324	1.449	1.583	1.726	1.880	2.045	
6	0.8389	0.8900	0.9437	1.000	1.069	1.121	1.186	1.254	1.325	1.400	1.560	1.735	1.926	2.133	2.360	
7	0.8147	0.8729	0.9346	1.000	1.069	1.143	1.220	1.302	1.389	1.481	1.680	1.902	2.148	2.421	2.723	
8	0.7912	0.8581	0.9256	1.000	1.080	1.165	1.255	1.352	1.456	1.566	1.809	2.084	2.396	2.747	3.142	
9	0.7684	0.8397	0.9167	1.000	1.090	1.187	1.292	1.404	1.526	1.657	1.948	2.285	2.672	3.116	3.625	
10	0.7462	0.8235	0.9079	1.000	1.100	1.210	1.329	1.458	1.599	1.752	2.098	2.504	2.980	3.536	4.183	
11	0.7247	0.8077	0.8992	1.000	1.111	1.233	1.367	1.515	1.676	1.853	2.260	2.745	3.324	4.012	4.826	
12	0.7038	0.7921	0.8905	1.000	1.122	1.257	1.407	1.573	1.757	1.960	2.433	3.009	3.708	4.552	5.569	
13	0.6835	0.7769	0.8820	1.000	1.132	1.281	1.447	1.633	1.841	2.073	2.621	3.299	4.135	5.165	6.426	
14	0.6638	0.7620	0.8735	1.000	1.143	1.306	1.489	1.696	1.930	2.193	2.822	3.616	4.613	5.860	7.414	
15	0.6446	0.7473	0.8651	1.000	1.154	1.331	1.532	1.761	2.023	2.319	3.039	3.963	5.145	6.649	8.555	
16	0.6260	0.7328	0.8568	1.000	1.165	1.356	1.576	1.829	2.120	2.453	3.273	4.345	5.738	7.544	9.871	
17	0.6080	0.7188	0.8485	1.000	1.177	1.382	1.622	1.899	2.222	2.595	3.525	4.762	6.401	8.559	11.39	
18	0.5905	0.7050	0.8404	1.000	1.188	1.409	1.668	1.973	2.329	2.745	3.796	5.220	7.139	9.711	13.14	
19	0.5734	0.6915	0.8323	1.000	1.199	1.436	1.717	2.048	2.440	2.903	4.088	5.722	7.963	11.02	15.16	
20	0.5569	0.6782	0.8243	1.000	1.211	1.464	1.766	2.127	2.558	3.070	4.402	6.272	8.882	12.50	17.50	
21	0.5408	0.6651	0.8164	1.000	1.223	1.492	1.817	2.209	2.681	3.247	4.741	6.875	9.906	14.18	20.19	
22	0.5252	0.6523	0.8085	1.000	1.234	1.521	1.869	2.294	2.810	3.435	5.106	7.537	11.05	16.09	23.29	
23	0.5101	0.6398	0.8007	1.000	1.246	1.550	1.923	2.382	2.945	3.633	5.499	8.261	12.32	18.26	26.88	
24	0.4954	0.6275	0.7930	1.000	1.258	1.580	1.979	2.474	3.086	3.843	5.922	9.056	13.75	20.72	31.01	
25	0.4811	0.6154	0.7854	1.000	1.270	1.610	2.036	2.569	3.235	4.064	6.377	9.926	15.33	23.51	35.78	
26	0.4672	0.6036	0.7779	1.000	1.282	1.641	2.095	2.668	3.390	4.299	6.868	10.88	17.10	26.67	41.29	
27	0.4537	0.5920	0.7704	1.000	1.295	1.672	2.155	2.770	3.553	4.547	7.396	11.93	19.08	30.26	47.64	
28	0.4406	0.5806	0.7630	1.000	1.307	1.705	2.217	2.877	3.724	4.809	7.965	13.07	21.28	34.34	54.97	
29	0.4279	0.5694	0.7556	1.000	1.320	1.737	2.281	2.988	3.903	5.087	8.577	14.33	23.73	38.96	63.43	
30	0.4156	0.5585	0.7484	1.000	1.333	1.771	2.347	3.103	4.091	5.380	9.237	15.71	26.47	44.20	73.19	
31	0.4036	0.5477	0.7412	1.000	1.345	1.805	2.415	3.222	4.287	5.690	9.948	17.22	29.52	50.15	84.45	
32	0.3919	0.5372	0.7340	1.000	1.358	1.840	2.484	3.346	4.493	6.019	10.71	18.88	32.93	56.91	97.44	
33	0.3806	0.5269	0.7270	1.000	1.371	1.875	2.556	3.474	4.710	6.366	11.54	20.69	36.73	64.57	112.4	
34	0.3697	0.5167	0.7200	1.000	1.385	1.911	2.630	3.608	4.936	6.733	12.42	22.68	40.97	73.26	129.7	
35	0.3590	0.5068	0.7131	1.000	1.398	1.948	2.706	3.747	5.173	7.122	13.38	24.86	45.69	83.12	149.7	
36	0.3486	0.4971	0.7062	1.000	1.411	1.985	2.784	3.891	5.422	7.532	14.41	27.25	50.97	94.31	172.7	
37	0.3386	0.4875	0.6994	1.000	1.425	2.023	2.864	4.041	5.683	7.967	15.52	29.87	56.85	107.0	199.3	
38	0.3288	0.4781	0.6927	1.000	1.439	2.062	2.947	4.186	5.956	8.427	16.71	32.74	63.41	121.4	229.9	
39	0.3193	0.4689	0.6860	1.000	1.452	2.102	3.032	4.357	6.242	8.913	18.00	35.89	70.72	137.8	265.3	
40	0.3101	0.4599	0.6794	1.000	1.466	2.142	3.119	4.525	6.542	9.427	19.38	39.34	78.88	156.3	306.1	

^a See page vi for an explanation of the proper use of this table.

Table S-5
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 5%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9619	0.9714	0.9810	0.9905	1.000	1.010	1.019	1.029	1.038	1.048	1.067	1.086	1.105	1.124	1.143					
2	0.9253	0.9437	0.9623	0.9810	1.000	1.019	1.038	1.058	1.078	1.098	1.138	1.179	1.220	1.263	1.306					
3	0.8900	0.9167	0.9439	0.9717	1.000	1.029	1.058	1.088	1.119	1.150	1.214	1.280	1.348	1.419	1.493					
4	0.8561	0.8905	0.9260	0.9624	1.000	1.039	1.078	1.119	1.161	1.205	1.295	1.390	1.490	1.595	1.706					
5	0.8235	0.8651	0.9083	0.9533	1.000	1.049	1.099	1.151	1.206	1.262	1.381	1.509	1.646	1.793	1.950					
6	0.7921	0.8404	0.8910	0.9442	1.000	1.059	1.120	1.184	1.251	1.322	1.473	1.638	1.818	2.014	2.228					
7	0.7619	0.8163	0.8740	0.9352	1.000	1.069	1.141	1.218	1.299	1.385	1.571	1.778	2.009	2.264	2.547					
8	0.7329	0.7930	0.8574	0.9263	1.000	1.079	1.163	1.253	1.349	1.451	1.676	1.931	2.219	2.544	2.910					
9	0.7050	0.7704	0.8411	0.9175	1.000	1.089	1.185	1.289	1.400	1.520	1.788	2.096	2.451	2.859	3.326					
10	0.6781	0.7484	0.8250	0.9087	1.000	1.099	1.208	1.325	1.453	1.592	1.907	2.276	2.708	3.213	3.801					
11	0.6523	0.7270	0.8093	0.9001	1.000	1.110	1.231	1.363	1.509	1.668	2.034	2.471	2.992	3.611	4.344					
12	0.6275	0.7062	0.7939	0.8915	1.000	1.120	1.254	1.402	1.566	1.748	2.169	2.683	3.305	4.058	4.965					
13	0.6036	0.6860	0.7788	0.8830	1.000	1.131	1.278	1.442	1.626	1.831	2.314	2.913	3.652	4.560	5.674					
14	0.5806	0.6664	0.7640	0.8746	1.000	1.142	1.302	1.483	1.688	1.918	2.468	3.162	4.034	5.125	6.485					
15	0.5584	0.6474	0.7494	0.8663	1.000	1.153	1.327	1.526	1.752	2.009	2.633	3.433	4.457	5.760	7.411					
16	0.5372	0.6289	0.7351	0.8580	1.000	1.164	1.352	1.569	1.819	2.105	2.808	3.728	4.924	6.473	8.470					
17	0.5167	0.6109	0.7211	0.8499	1.000	1.175	1.378	1.614	1.888	2.205	2.996	4.047	5.440	7.274	9.680					
18	0.4970	0.5935	0.7074	0.8418	1.000	1.186	1.404	1.660	1.960	2.310	3.195	4.394	6.009	8.175	11.06					
19	0.4781	0.5765	0.6939	0.8338	1.000	1.197	1.431	1.708	2.035	2.420	3.408	4.771	6.639	9.187	12.64					
20	0.4599	0.5600	0.6807	0.8258	1.000	1.209	1.458	1.757	2.112	2.536	3.636	5.180	7.335	10.32	14.45					
21	0.4424	0.5440	0.6677	0.8179	1.000	1.220	1.486	1.807	2.193	2.656	3.878	5.624	8.103	11.60	16.51					
22	0.4255	0.5285	0.6550	0.8102	1.000	1.232	1.515	1.858	2.276	2.783	4.136	6.106	8.952	13.04	18.87					
23	0.4093	0.5134	0.6425	0.8024	1.000	1.244	1.543	1.912	2.363	2.915	4.412	6.629	9.890	14.65	21.57					
24	0.3937	0.4987	0.6303	0.7948	1.000	1.255	1.573	1.966	2.453	3.054	4.706	7.197	10.93	16.47	24.65					
25	0.3787	0.4845	0.6183	0.7872	1.000	1.267	1.603	2.022	2.546	3.200	5.020	7.814	12.07	18.51	28.17					
26	0.3643	0.4706	0.6065	0.7797	1.000	1.279	1.633	2.080	2.643	3.352	5.355	8.484	13.33	20.80	32.20					
27	0.3504	0.4572	0.5950	0.7723	1.000	1.292	1.664	2.140	2.744	3.511	5.712	9.211	14.73	23.37	36.79					
28	0.3371	0.4441	0.5836	0.7650	1.000	1.304	1.696	2.201	2.849	3.679	6.093	10.00	16.28	26.27	42.05					
29	0.3242	0.4314	0.5725	0.7577	1.000	1.316	1.728	2.264	2.957	3.854	6.499	10.86	17.98	29.52	48.06					
30	0.3119	0.4191	0.5616	0.7504	1.000	1.329	1.761	2.328	3.070	4.037	6.932	11.79	19.86	33.17	54.92					
31	0.3000	0.4071	0.5509	0.7433	1.000	1.342	1.795	2.395	3.187	4.230	7.394	12.80	21.94	37.28	62.77					
32	0.2886	0.3955	0.5404	0.7362	1.000	1.354	1.829	2.463	3.308	4.431	7.887	13.90	24.24	41.90	71.74					
33	0.2776	0.3842	0.5301	0.7292	1.000	1.367	1.864	2.534	3.434	4.642	8.413	15.09	26.78	47.08	81.99					
34	0.2670	0.3732	0.5200	0.7223	1.000	1.380	1.899	2.606	3.565	4.863	8.974	16.38	29.59	52.91	93.70					
35	0.2568	0.3626	0.5101	0.7154	1.000	1.393	1.936	2.680	3.701	5.095	9.572	17.78	32.69	59.46	107.1					
36	0.2470	0.3522	0.5004	0.7086	1.000	1.407	1.972	2.757	3.842	5.337	10.21	19.31	36.11	66.83	122.4					
37	0.2376	0.3421	0.4909	0.7018	1.000	1.420	2.010	2.836	3.988	5.591	10.89	20.96	39.90	75.10	139.9					
38	0.2286	0.3324	0.4815	0.6951	1.000	1.434	2.048	2.917	4.140	5.858	11.62	22.76	44.08	84.40	159.8					
39	0.2199	0.3229	0.4724	0.6885	1.000	1.447	2.087	3.000	4.298	6.137	12.39	24.71	48.69	94.85	182.7					
40	0.2115	0.3136	0.4634	0.6820	1.000	1.461	2.127	3.086	4.462	6.429	13.22	26.83	53.80	106.6	208.8					

^a See page vi for an explanation of the proper use of this table.

Table S-6
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 6%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9528	0.9623	0.9717	0.9811	0.9906	1.0000	1.0099	1.0199	1.0288	1.0388	1.057	1.075	1.094	1.113	1.132					
2	0.9079	0.9260	0.9442	0.9626	0.9812	1.0000	1.0199	1.0388	1.057	1.077	1.116	1.157	1.198	1.239	1.282					
3	0.8651	0.8910	0.9175	0.9445	0.9720	1.0000	1.029	1.058	1.087	1.118	1.180	1.244	1.311	1.380	1.451					
4	0.8243	0.8574	0.8915	0.9266	0.9628	1.0000	1.038	1.078	1.118	1.160	1.246	1.338	1.434	1.536	1.642					
5	0.7854	0.8250	0.8663	0.9092	0.9537	1.0000	1.048	1.098	1.150	1.203	1.317	1.439	1.569	1.710	1.859					
6	0.7483	0.7939	0.8418	0.8920	0.9447	1.0000	1.058	1.119	1.182	1.249	1.391	1.547	1.718	1.903	2.105					
7	0.7130	0.7639	0.8179	0.8752	0.9358	1.0000	1.068	1.140	1.216	1.296	1.470	1.664	1.880	2.119	2.383					
8	0.6794	0.7351	0.7948	0.8587	0.9270	1.0000	1.078	1.161	1.250	1.345	1.553	1.790	2.057	2.358	2.698					
9	0.6474	0.7074	0.7723	0.8425	0.9182	1.0000	1.088	1.183	1.286	1.396	1.641	1.925	2.251	2.625	3.054					
10	0.6168	0.6807	0.7504	0.8266	0.9096	1.0000	1.098	1.206	1.322	1.448	1.734	2.070	2.463	2.923	3.457					
11	0.5877	0.6550	0.7292	0.8110	0.9010	1.0000	1.109	1.228	1.359	1.503	1.832	2.226	2.696	3.253	3.914					
12	0.5600	0.6303	0.7086	0.7957	0.8925	1.0000	1.119	1.251	1.398	1.560	1.936	2.394	2.950	3.622	4.431					
13	0.5336	0.6065	0.6885	0.7807	0.8841	1.0000	1.130	1.275	1.437	1.619	2.046	2.575	3.228	4.032	5.016					
14	0.5084	0.5836	0.6690	0.7659	0.8757	1.0000	1.140	1.299	1.478	1.680	2.162	2.798	3.533	4.488	5.679					
15	0.4844	0.5616	0.6501	0.7515	0.8675	1.0000	1.151	1.324	1.520	1.743	2.284	2.978	3.866	4.996	6.429					
16	0.4616	0.5404	0.6317	0.7373	0.8593	1.0000	1.162	1.349	1.563	1.809	2.413	3.203	4.231	5.562	7.278					
17	0.4398	0.5200	0.6138	0.7234	0.8512	1.0000	1.173	1.374	1.607	1.877	2.550	3.445	4.630	6.191	8.239					
18	0.4191	0.5004	0.5964	0.7097	0.8431	1.0000	1.184	1.400	1.653	1.948	2.694	3.705	5.067	6.892	9.327					
19	0.3993	0.4815	0.5796	0.6963	0.8352	1.0000	1.195	1.426	1.699	2.021	2.847	3.985	5.545	7.673	10.56					
20	0.3805	0.4633	0.5632	0.6832	0.8273	1.0000	1.207	1.453	1.747	2.098	3.008	4.285	6.068	8.541	11.95					
21	0.3625	0.4458	0.5472	0.6703	0.8195	1.0000	1.218	1.481	1.797	2.177	3.178	4.609	6.640	9.508	13.53					
22	0.3454	0.4290	0.5317	0.6577	0.8118	1.0000	1.229	1.509	1.848	2.259	3.358	4.957	7.267	10.58	15.32					
23	0.3291	0.4128	0.5167	0.6453	0.8041	1.0000	1.241	1.537	1.900	2.344	3.548	5.331	7.952	11.78	17.34					
24	0.3136	0.3972	0.5021	0.6331	0.7965	1.0000	1.253	1.566	1.954	2.433	3.748	5.733	8.703	13.12	19.63					
25	0.2988	0.3823	0.4878	0.6211	0.7890	1.0000	1.265	1.596	2.009	2.524	3.961	6.166	9.524	14.60	22.23					
26	0.2847	0.3678	0.4740	0.6094	0.7816	1.0000	1.277	1.626	2.066	2.620	4.185	6.631	10.42	16.25	25.16					
27	0.2713	0.3540	0.4606	0.5979	0.7742	1.0000	1.289	1.656	2.125	2.719	4.422	7.131	11.41	18.09	28.49					
28	0.2585	0.3406	0.4476	0.5866	0.7669	1.0000	1.301	1.688	2.185	2.821	4.672	7.670	12.48	20.14	32.25					
29	0.2463	0.3277	0.4349	0.5756	0.7597	1.0000	1.313	1.720	2.246	2.928	4.937	8.248	13.66	22.42	36.51					
30	0.2347	0.3154	0.4226	0.5647	0.7525	1.0000	1.325	1.752	2.310	3.038	5.216	8.871	14.95	24.96	41.33					
31	0.2236	0.3035	0.4107	0.5541	0.7454	1.0000	1.338	1.785	2.375	3.153	5.512	9.540	16.36	27.79	46.79					
32	0.2131	0.2920	0.3990	0.5436	0.7384	1.0000	1.351	1.819	2.443	3.272	5.824	10.26	17.90	30.93	52.97					
33	0.2030	0.2810	0.3877	0.5333	0.7314	1.0000	1.363	1.853	2.512	3.395	6.153	11.03	19.59	34.44	59.96					
34	0.1934	0.2704	0.3768	0.5233	0.7245	1.0000	1.376	1.888	2.583	3.523	6.502	11.87	21.44	38.33	67.88					
35	0.1843	0.2602	0.3661	0.5134	0.7177	1.0000	1.389	1.924	2.656	3.656	6.870	12.76	23.46	42.67	76.85					
36	0.1756	0.2504	0.3557	0.5037	0.7109	1.0000	1.402	1.960	2.731	3.794	7.258	13.73	25.67	47.51	87.00					
37	0.1673	0.2409	0.3457	0.4942	0.7042	1.0000	1.415	1.997	2.808	3.937	7.669	14.76	28.09	52.88	98.49					
38	0.1594	0.2318	0.3359	0.4849	0.6975	1.0000	1.429	2.035	2.888	4.086	8.103	15.88	30.75	58.87	111.5					
39	0.1519	0.2231	0.3264	0.4757	0.6910	1.0000	1.442	2.073	2.970	4.240	8.562	17.08	33.65	65.53	126.2					
40	0.1448	0.2147	0.3171	0.4668	0.6844	1.0000	1.456	2.112	3.054	4.400	9.047	18.36	36.82	72.95	142.9					

^a See page vi for an explanation of the proper use of this table.

Table S-7
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 7%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9439	0.9533	0.9626	0.9720	0.9813	0.9907	1.0000	1.0099	1.0199	1.0288	1.0477	1.0665	1.0854	1.1043	1.1231					
2	0.8910	0.9087	0.9266	0.9447	0.9630	0.9814	1.0000	1.0199	1.0398	1.0597	1.0796	1.1065	1.1355	1.1645	1.1935					
3	0.8410	0.8663	0.8920	0.9182	0.9450	0.9722	1.0000	1.0288	1.0577	1.0866	1.1155	1.1444	1.1733	1.2022	1.2311					
4	0.7939	0.8258	0.8586	0.8925	0.9273	0.9631	1.0000	1.0388	1.0777	1.1167	1.1557	1.1946	1.2335	1.2724	1.3113					
5	0.7494	0.7872	0.8265	0.8675	0.9100	0.9541	1.0000	1.0487	1.0977	1.1468	1.1959	1.2450	1.2941	1.3432	1.3923					
6	0.7073	0.7504	0.7956	0.8431	0.8930	0.9452	1.0000	1.0577	1.1188	1.1800	1.2412	1.3024	1.3636	1.4248	1.4860					
7	0.6677	0.7153	0.7659	0.8195	0.8763	0.9364	1.0000	1.0677	1.1388	1.2148	1.2918	1.3688	1.4458	1.5228	1.5998					
8	0.6302	0.6819	0.7373	0.7965	0.8599	0.9276	1.0000	1.0777	1.1600	1.2448	1.3312	1.4182	1.5058	1.5934	1.6810					
9	0.5949	0.6501	0.7097	0.7742	0.8438	0.9190	1.0000	1.0877	1.1811	1.2833	1.3855	1.4877	1.5899	1.6921	1.7943					
10	0.5615	0.6197	0.6832	0.7525	0.8280	0.9104	1.0000	1.0977	1.2030	1.3191	1.4352	1.5513	1.6674	1.7835	1.8996					
11	0.5300	0.5907	0.6576	0.7314	0.8126	0.9019	1.0000	1.1088	1.2269	1.3550	1.4831	1.6112	1.7393	1.8674	1.9955					
12	0.5003	0.5631	0.6331	0.7109	0.7974	0.8934	1.0000	1.1188	1.2499	1.3930	1.5371	1.6812	1.8253	1.9694	2.1135					
13	0.4723	0.5368	0.6094	0.6909	0.7825	0.8851	1.0000	1.1299	1.2772	1.4333	1.5994	1.7655	1.9316	2.0977	2.2638					
14	0.4458	0.5117	0.5866	0.6716	0.7679	0.8768	1.0000	1.1339	1.2966	1.4737	1.6568	1.8399	2.0230	2.2061	2.3892					
15	0.4208	0.4878	0.5647	0.6527	0.7535	0.8686	1.0000	1.1500	1.3200	1.5141	1.7222	1.9303	2.1384	2.3465	2.5546					
16	0.3972	0.4650	0.5436	0.6344	0.7394	0.8605	1.0000	1.1600	1.3450	1.5566	1.7777	1.9988	2.2199	2.4410	2.6621					
17	0.3749	0.4433	0.5232	0.6167	0.7256	0.8525	1.0000	1.1711	1.3700	1.6000	1.8400	2.0800	2.3200	2.5600	2.8000					
18	0.3539	0.4226	0.5037	0.5984	0.7120	0.8445	1.0000	1.1822	1.3966	1.6455	1.9144	2.1833	2.4522	2.7211	2.9900					
19	0.3341	0.4028	0.4849	0.5826	0.6987	0.8366	1.0000	1.1933	1.4222	1.6911	2.0800	2.4789	2.8778	3.2767	3.6756					
20	0.3153	0.3840	0.4667	0.5662	0.6857	0.8288	1.0000	1.2044	1.4448	1.7399	2.1493	2.5682	2.9871	3.4060	3.8249					
21	0.2976	0.3661	0.4493	0.5504	0.6728	0.8210	1.0000	1.2165	1.4755	1.7877	2.2099	2.6398	3.0697	3.4996	3.9295					
22	0.2809	0.3489	0.4325	0.5349	0.6603	0.8134	1.0000	1.2277	1.5033	1.8377	2.2731	2.7185	3.1639	3.6093	4.0547					
23	0.2652	0.3326	0.4163	0.5199	0.6479	0.8058	1.0000	1.2399	1.5311	1.8899	2.3422	2.7976	3.2530	3.7084	4.1638					
24	0.2503	0.3171	0.4008	0.5053	0.6358	0.7982	1.0000	1.2520	1.5600	1.9422	2.3999	2.8653	3.3312	3.7976	4.2627					
25	0.2363	0.3023	0.3858	0.4912	0.6239	0.7908	1.0000	1.2644	1.5899	1.9966	2.4599	2.9366	3.4140	3.8914	4.3616					
26	0.2230	0.2882	0.3714	0.4774	0.6123	0.7834	1.0000	1.2774	1.6188	2.0522	2.5377	3.0252	3.5127	3.9999	4.4599					
27	0.2105	0.2747	0.3575	0.4640	0.6008	0.7761	1.0000	1.2864	1.6499	2.1100	2.6022	3.0922	3.5797	4.0672	4.5547					
28	0.1987	0.2619	0.3441	0.4510	0.5896	0.7688	1.0000	1.2988	1.6800	2.1699	2.6777	3.1677	3.6552	4.1447	4.6322					
29	0.1876	0.2496	0.3312	0.4384	0.5786	0.7616	1.0000	1.3100	1.7111	2.2300	2.7522	3.2366	3.7241	4.2122	4.7000					
30	0.1771	0.2380	0.3189	0.4261	0.5678	0.7545	1.0000	1.3222	1.7433	2.2922	2.8144	3.2966	3.7841	4.2722	4.7600					
31	0.1671	0.2268	0.3069	0.4141	0.5571	0.7475	1.0000	1.3344	1.7766	2.3577	2.8366	3.3577	3.8452	4.3333	4.8244					
32	0.1578	0.2162	0.2955	0.4025	0.5467	0.7405	1.0000	1.3477	1.8099	2.4233	2.8799	3.4200	3.9083	4.3966	4.8877					
33	0.1489	0.2061	0.2844	0.3912	0.5365	0.7335	1.0000	1.3599	1.8433	2.4911	2.9222	3.4833	3.9716	4.4600	4.9511					
34	0.1406	0.1965	0.2738	0.3803	0.5265	0.7267	1.0000	1.3722	1.8777	2.5600	3.0000	3.5466	4.0350	4.5244	5.0144					
35	0.1327	0.1873	0.2636	0.3686	0.5166	0.7199	1.0000	1.3855	1.9122	2.6300	3.0666	3.6100	4.1000	4.5888	5.0788					
36	0.1252	0.1786	0.2537	0.3592	0.5070	0.7132	1.0000	1.3988	1.9488	2.7022	3.1333	3.6833	4.1666	4.6533	5.1433					
37	0.1182	0.1702	0.2442	0.3492	0.4975	0.7065	1.0000	1.4111	1.9844	2.7822	3.2066	3.7566	4.2300	4.7188	5.2088					
38	0.1116	0.1623	0.2351	0.3394	0.4882	0.6999	1.0000	1.4244	2.0211	2.8600	3.2800	3.8300	4.3000	4.7844	5.2744					
39	0.1053	0.1547	0.2263	0.3299	0.4791	0.6934	1.0000	1.4377	2.0599	2.9400	3.3533	3.9033	4.3666	4.8511	5.3411					
40	0.0994	0.1475	0.2178	0.3206	0.4701	0.6869	1.0000	1.4511	2.0988	3.0222	3.4266	3.9766	4.4333	4.9188	5.4088					

^a See page vi for an explanation of the proper use of this table.

Table S-8
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 8%

Period	Rate of Price Increase per Period															
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	
1	0.9352	0.9444	0.9537	0.9630	0.9722	0.9815	0.9907	1.000	1.009	1.019	1.037	1.056	1.074	1.093	1.111	
2	0.8746	0.8920	0.9096	0.9273	0.9452	0.9633	0.9816	1.000	1.019	1.037	1.075	1.114	1.154	1.194	1.235	
3	0.8179	0.8424	0.8674	0.8930	0.9190	0.9455	0.9725	1.000	1.028	1.057	1.115	1.176	1.239	1.304	1.372	
4	0.7649	0.7956	0.8273	0.8599	0.8934	0.9280	0.9635	1.000	1.038	1.076	1.157	1.241	1.331	1.425	1.524	
5	0.7153	0.7514	0.7890	0.8280	0.8686	0.9108	0.9546	1.000	1.047	1.096	1.199	1.310	1.429	1.557	1.694	
6	0.6689	0.7097	0.7525	0.7974	0.8445	0.8939	0.9457	1.000	1.057	1.116	1.244	1.383	1.535	1.701	1.882	
7	0.6256	0.6702	0.7176	0.7678	0.8210	0.8774	0.9370	1.000	1.067	1.137	1.290	1.460	1.649	1.859	2.091	
8	0.5850	0.6330	0.6844	0.7394	0.7982	0.8611	0.9283	1.000	1.077	1.158	1.338	1.541	1.771	2.031	2.323	
9	0.5471	0.5978	0.6527	0.7120	0.7760	0.8452	0.9187	1.000	1.086	1.180	1.387	1.627	1.902	2.219	2.581	
10	0.5117	0.5646	0.6225	0.6856	0.7545	0.8295	0.9112	1.000	1.097	1.201	1.439	1.717	2.043	2.424	2.868	
11	0.4785	0.5333	0.5937	0.6602	0.7335	0.8141	0.9027	1.000	1.107	1.224	1.492	1.813	2.195	2.649	3.187	
12	0.4475	0.5036	0.5662	0.6358	0.7132	0.7991	0.8944	1.000	1.117	1.246	1.547	1.913	2.357	2.894	3.541	
13	0.4185	0.4757	0.5400	0.6122	0.6933	0.7843	0.8861	1.000	1.127	1.269	1.604	2.020	2.532	3.162	3.934	
14	0.3914	0.4492	0.5150	0.5896	0.6741	0.7697	0.8779	1.000	1.138	1.293	1.664	2.132	2.719	3.455	4.371	
15	0.3660	0.4243	0.4911	0.5677	0.6554	0.7555	0.8698	1.000	1.148	1.317	1.725	2.250	2.921	3.775	4.857	
16	0.3423	0.4007	0.4684	0.5467	0.6372	0.7415	0.8617	1.000	1.159	1.341	1.789	2.375	3.137	4.124	5.397	
17	0.3201	0.3784	0.4467	0.5265	0.6193	0.7278	0.8537	1.000	1.170	1.366	1.856	2.507	3.370	4.506	5.996	
18	0.2993	0.3574	0.4260	0.5070	0.6023	0.7143	0.8458	1.000	1.180	1.391	1.924	2.646	3.619	4.923	6.662	
19	0.2789	0.3376	0.4063	0.4882	0.5855	0.7011	0.8380	1.000	1.191	1.417	1.996	2.793	3.887	5.379	7.403	
20	0.2618	0.3188	0.3875	0.4701	0.5693	0.6881	0.8302	1.000	1.202	1.443	2.070	2.949	4.175	5.877	8.225	
21	0.2448	0.3011	0.3696	0.4527	0.5534	0.6753	0.8225	1.000	1.214	1.470	2.146	3.112	4.485	6.421	9.139	
22	0.2290	0.2844	0.3524	0.4359	0.5381	0.6628	0.8149	1.000	1.225	1.497	2.226	3.285	4.817	7.016	10.15	
23	0.2141	0.2686	0.3361	0.4198	0.5231	0.6506	0.8074	1.000	1.236	1.525	2.308	3.468	5.174	7.665	11.28	
24	0.2002	0.2536	0.3206	0.4042	0.5086	0.6385	0.7999	1.000	1.248	1.553	2.394	3.661	5.557	8.375	12.54	
25	0.1873	0.2396	0.3057	0.3893	0.4945	0.6267	0.7825	1.000	1.259	1.582	2.482	3.864	5.968	9.151	13.93	
26	0.1751	0.2262	0.2916	0.3748	0.4807	0.6151	0.7825	1.000	1.271	1.611	2.574	4.079	6.410	9.998	15.48	
27	0.1638	0.2137	0.2781	0.3610	0.4674	0.6037	0.7779	1.000	1.283	1.641	2.670	4.305	6.885	10.92	17.20	
28	0.1532	0.2018	0.2652	0.3476	0.4544	0.5925	0.7707	1.000	1.294	1.672	2.768	4.544	7.395	11.94	19.11	
29	0.1432	0.1906	0.2529	0.3347	0.4418	0.5815	0.7636	1.000	1.306	1.703	2.871	4.797	7.943	13.04	21.23	
30	0.1339	0.1800	0.2412	0.3223	0.4295	0.5708	0.7565	1.000	1.319	1.734	2.977	5.063	8.532	14.25	23.59	
31	0.1253	0.1700	0.2300	0.3104	0.4176	0.5602	0.7495	1.000	1.331	1.766	3.088	5.345	9.163	15.57	26.21	
32	0.1171	0.1606	0.2194	0.2989	0.4060	0.5498	0.7425	1.000	1.343	1.799	3.202	5.641	9.842	17.01	29.12	
33	0.1096	0.1516	0.2092	0.2878	0.3947	0.5396	0.7357	1.000	1.355	1.832	3.321	5.955	10.57	18.58	32.36	
34	0.1025	0.1432	0.1996	0.2772	0.3837	0.5297	0.7289	1.000	1.368	1.866	3.444	6.286	11.35	20.30	35.95	
35	0.0958	0.1353	0.1903	0.2669	0.3731	0.5198	0.7221	1.000	1.381	1.901	3.571	6.635	12.20	22.18	39.95	
36	0.0896	0.1277	0.1815	0.2570	0.3627	0.5102	0.7154	1.000	1.393	1.936	3.703	7.004	13.10	24.24	44.39	
37	0.0838	0.1206	0.1731	0.2475	0.3526	0.5008	0.7088	1.000	1.406	1.972	3.840	7.393	14.07	26.48	49.32	
38	0.0784	0.1139	0.1651	0.2383	0.3428	0.4915	0.7022	1.000	1.419	2.008	3.983	7.803	15.11	28.93	54.80	
39	0.0733	0.1076	0.1574	0.2295	0.3333	0.4824	0.6957	1.000	1.433	2.045	4.130	8.237	16.23	31.61	60.89	
40	0.0685	0.1016	0.1502	0.2210	0.3241	0.4735	0.6893	1.000	1.446	2.083	4.283	8.694	17.43	34.54	67.66	

^a See page vi for an explanation of the proper use of this table.

Table S-9
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 9%

Period	Rate of Price Increase per Period																
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%		
1	0.9266	0.9358	0.9450	0.9541	0.9633	0.9725	0.9817	0.9908	1.000	1.009	1.028	1.046	1.064	1.083	1.101		
2	0.8586	0.8757	0.8929	0.9104	0.9280	0.9457	0.9636	0.9817	1.000	1.018	1.056	1.094	1.133	1.172	1.212		
3	0.7956	0.8194	0.8438	0.8686	0.8939	0.9197	0.9460	0.9727	1.000	1.028	1.085	1.144	1.205	1.269	1.334		
4	0.7372	0.7668	0.7973	0.8288	0.8611	0.8944	0.9286	0.9638	1.000	1.037	1.115	1.197	1.283	1.373	1.469		
5	0.6831	0.7176	0.7534	0.7907	0.8295	0.8698	0.9116	0.9550	1.000	1.047	1.145	1.251	1.365	1.487	1.617		
6	0.6329	0.6715	0.7120	0.7545	0.7991	0.8458	0.8948	0.9462	1.000	1.056	1.177	1.309	1.453	1.610	1.780		
7	0.5865	0.6284	0.6728	0.7199	0.7697	0.8225	0.8784	0.9375	1.000	1.066	1.209	1.369	1.546	1.743	1.960		
8	0.5434	0.5880	0.6357	0.6868	0.7415	0.7999	0.8623	0.9289	1.000	1.076	1.243	1.432	1.645	1.886	2.158		
9	0.5036	0.5503	0.6008	0.6553	0.7143	0.7779	0.8465	0.9204	1.000	1.086	1.277	1.497	1.751	2.042	2.376		
10	0.4666	0.5149	0.5677	0.6253	0.6881	0.7565	0.8309	0.9120	1.000	1.096	1.312	1.566	1.863	2.211	2.615		
11	0.4324	0.4818	0.5364	0.5966	0.6628	0.7357	0.8157	0.9036	1.000	1.106	1.348	1.638	1.983	2.393	2.879		
12	0.4006	0.4509	0.5069	0.5692	0.6385	0.7154	0.8007	0.8953	1.000	1.116	1.385	1.713	2.110	2.591	3.170		
13	0.3712	0.4219	0.4790	0.5431	0.6151	0.6957	0.7860	0.8871	1.000	1.126	1.423	1.792	2.246	2.805	3.490		
14	0.3440	0.3948	0.4526	0.5182	0.5925	0.6766	0.7716	0.8789	1.000	1.136	1.462	1.874	2.390	3.037	3.842		
15	0.3187	0.3695	0.4277	0.4944	0.5707	0.6579	0.7575	0.8709	1.000	1.147	1.503	1.960	2.507	3.287	4.230		
16	0.2953	0.3458	0.4042	0.4717	0.5498	0.6398	0.7436	0.8629	1.000	1.157	1.544	2.050	2.707	3.559	4.657		
17	0.2737	0.3236	0.3819	0.4501	0.5296	0.6222	0.7299	0.8550	1.000	1.168	1.587	2.144	2.881	3.853	5.127		
18	0.2536	0.3028	0.3609	0.4295	0.5102	0.6051	0.7165	0.8471	1.000	1.179	1.630	2.242	3.066	4.171	5.644		
19	0.2350	0.2833	0.3410	0.4098	0.4915	0.5884	0.7034	0.8394	1.000	1.189	1.675	2.345	3.263	4.515	6.214		
20	0.2177	0.2651	0.3223	0.3910	0.4734	0.5723	0.6905	0.8317	1.000	1.200	1.721	2.452	3.472	4.888	6.841		
21	0.2017	0.2481	0.3045	0.3730	0.4561	0.5565	0.6778	0.8240	1.000	1.211	1.769	2.565	3.695	5.291	7.531		
22	0.1869	0.2322	0.2878	0.3559	0.4393	0.5412	0.6654	0.8165	1.000	1.223	1.817	2.682	3.933	5.728	8.291		
23	0.1732	0.2173	0.2719	0.3396	0.4232	0.5263	0.6532	0.8090	1.000	1.234	1.867	2.805	4.185	6.201	9.128		
24	0.1605	0.2033	0.2570	0.3240	0.4077	0.5118	0.6412	0.8016	1.000	1.245	1.919	2.934	4.454	6.713	10.05		
25	0.1487	0.1903	0.2428	0.3092	0.3927	0.4977	0.6294	0.7942	1.000	1.256	1.971	3.069	4.740	7.268	11.06		
26	0.1378	0.1780	0.2294	0.2950	0.3783	0.4840	0.6179	0.7869	1.000	1.268	2.026	3.209	5.044	7.868	12.18		
27	0.1277	0.1666	0.2168	0.2814	0.3644	0.4707	0.6065	0.7797	1.000	1.280	2.081	3.357	5.368	8.517	13.41		
28	0.1183	0.1559	0.2049	0.2685	0.3510	0.4577	0.5954	0.7725	1.000	1.291	2.139	3.511	5.713	9.221	14.76		
29	0.1096	0.1459	0.1936	0.2562	0.3382	0.4451	0.5845	0.7655	1.000	1.303	2.198	3.672	6.080	9.982	16.25		
30	0.1016	0.1365	0.1829	0.2445	0.3257	0.4329	0.5737	0.7584	1.000	1.315	2.258	3.840	6.471	10.81	17.89		
31	0.0941	0.1278	0.1729	0.2332	0.3138	0.4210	0.5632	0.7515	1.000	1.327	2.320	4.016	6.886	11.70	19.70		
32	0.0872	0.1196	0.1634	0.2225	0.3023	0.4094	0.5529	0.7446	1.000	1.339	2.384	4.201	7.328	12.66	21.68		
33	0.0808	0.1119	0.1544	0.2123	0.2912	0.3981	0.5427	0.7378	1.000	1.352	2.450	4.393	7.799	13.71	23.87		
34	0.0749	0.1047	0.1459	0.2026	0.2805	0.3872	0.5328	0.7310	1.000	1.364	2.517	4.595	8.300	14.84	26.28		
35	0.0694	0.0980	0.1378	0.1933	0.2702	0.3765	0.5230	0.7243	1.000	1.377	2.586	4.806	8.833	16.07	28.93		
36	0.0643	0.0917	0.1303	0.1844	0.2603	0.3661	0.5134	0.7176	1.000	1.389	2.658	5.026	9.400	17.39	31.85		
37	0.0596	0.0858	0.1231	0.1760	0.2507	0.3561	0.5040	0.7110	1.000	1.402	2.731	5.257	10.00	18.83	35.07		
38	0.0552	0.0803	0.1163	0.1679	0.2415	0.3463	0.4947	0.7045	1.000	1.415	2.806	5.498	10.65	20.38	38.61		
39	0.0512	0.0751	0.1099	0.1602	0.2327	0.3367	0.4857	0.6981	1.000	1.428	2.883	5.750	11.33	22.07	42.50		
40	0.0474	0.0703	0.1039	0.1528	0.2241	0.3275	0.4768	0.6917	1.000	1.441	2.963	6.014	12.06	23.89	46.79		

^a See page vi for an explanation of the proper use of this table.

Table S-10
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 10%

Period	Rate of Price Increase per Period														
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%
1	0.9182	0.9273	0.9364	0.9455	0.9545	0.9636	0.9727	0.9818	0.9909	1.0000	1.0018	1.0036	1.0055	1.0073	1.0091
2	0.8431	0.8598	0.8768	0.8939	0.9112	0.9286	0.9462	0.9640	0.9819	1.0000	1.0037	1.0074	1.112	1.151	1.190
3	0.7741	0.7973	0.8210	0.8451	0.8697	0.8948	0.9204	0.9464	0.9730	1.0000	1.0056	1.113	1.173	1.234	1.298
4	0.7107	0.7393	0.7687	0.7990	0.8302	0.8623	0.8953	0.9292	0.9641	1.0000	1.0075	1.154	1.237	1.324	1.416
5	0.6526	0.6855	0.7198	0.7554	0.7925	0.8309	0.8709	0.9123	0.9554	1.0000	1.0094	1.196	1.304	1.421	1.545
6	0.5992	0.6357	0.6740	0.7142	0.7564	0.8007	0.8471	0.8957	0.9467	1.0000	1.114	1.239	1.375	1.524	1.686
7	0.5502	0.5895	0.6311	0.6753	0.7221	0.7716	0.8240	0.8795	0.9381	1.0000	1.134	1.284	1.450	1.635	1.839
8	0.5052	0.5466	0.5910	0.6384	0.6892	0.7435	0.8015	0.8635	0.9295	1.0000	1.155	1.331	1.529	1.754	2.006
9	0.4638	0.5068	0.5534	0.6036	0.6579	0.7165	0.7797	0.8478	0.9211	1.0000	1.176	1.379	1.613	1.881	2.188
10	0.4259	0.4700	0.5181	0.5707	0.6280	0.6904	0.7584	0.8324	0.9127	1.0000	1.197	1.429	1.701	2.018	2.387
11	0.3910	0.4358	0.4852	0.5396	0.5995	0.6653	0.7377	0.8172	0.9044	1.0000	1.219	1.481	1.794	2.165	2.604
12	0.3590	0.4041	0.4543	0.5101	0.5722	0.6411	0.7176	0.8024	0.8962	1.0000	1.241	1.535	1.891	2.322	2.841
13	0.3297	0.3747	0.4254	0.4823	0.5462	0.6178	0.6980	0.7878	0.8881	1.0000	1.264	1.591	1.995	2.491	3.099
14	0.3027	0.3475	0.3983	0.4560	0.5214	0.5954	0.6790	0.7735	0.8800	1.0000	1.287	1.649	2.103	2.672	3.381
15	0.2779	0.3222	0.3730	0.4311	0.4977	0.5737	0.6605	0.7594	0.8720	1.0000	1.310	1.709	2.218	2.866	3.688
16	0.2552	0.2988	0.3492	0.4076	0.4751	0.5529	0.6425	0.7456	0.8641	1.0000	1.334	1.771	2.339	3.075	4.024
17	0.2343	0.2770	0.3270	0.3854	0.4535	0.5327	0.6250	0.7320	0.8562	1.0000	1.358	1.835	2.467	3.299	4.389
18	0.2151	0.2569	0.3062	0.3644	0.4329	0.5134	0.6079	0.7187	0.8484	1.0000	1.383	1.902	2.601	3.538	4.788
19	0.1975	0.2382	0.2867	0.3445	0.4132	0.4947	0.5913	0.7057	0.8407	1.0000	1.408	1.971	2.743	3.796	5.224
20	0.1814	0.2209	0.2685	0.3257	0.3944	0.4767	0.5752	0.6928	0.8331	1.0000	1.434	2.043	2.893	4.072	5.699
21	0.1665	0.2048	0.2514	0.3079	0.3765	0.4594	0.5595	0.6802	0.8255	1.0000	1.460	2.117	3.050	4.368	6.217
22	0.1529	0.1899	0.2354	0.2911	0.3594	0.4427	0.5443	0.6679	0.8180	1.0000	1.486	2.194	3.217	4.686	6.782
23	0.1404	0.1761	0.2204	0.2753	0.3430	0.4266	0.5294	0.6557	0.8105	1.0000	1.514	2.274	3.392	5.026	7.398
24	0.1289	0.1633	0.2064	0.2602	0.3274	0.4111	0.5150	0.6438	0.8032	1.0000	1.541	2.357	3.577	5.392	8.071
25	0.1184	0.1514	0.1932	0.2460	0.3125	0.3961	0.5009	0.6321	0.7959	1.0000	1.569	2.442	3.773	5.784	8.805
26	0.1087	0.1404	0.1809	0.2326	0.2983	0.3817	0.4873	0.6206	0.7886	1.0000	1.598	2.531	3.978	6.205	9.605
27	0.0998	0.1302	0.1694	0.2199	0.2848	0.3678	0.4740	0.6093	0.7815	1.0000	1.627	2.623	4.195	6.656	10.48
28	0.0916	0.1207	0.1597	0.2079	0.2718	0.3545	0.4611	0.5982	0.7744	1.0000	1.656	2.719	4.424	7.140	11.43
29	0.0841	0.1119	0.1486	0.1966	0.2595	0.3416	0.4485	0.5874	0.7673	1.0000	1.686	2.817	4.665	7.659	12.47
30	0.0772	0.1038	0.1391	0.1859	0.2477	0.3292	0.4362	0.5767	0.7604	1.0000	1.717	2.920	4.920	8.216	13.60
31	0.0709	0.0963	0.1303	0.1757	0.2384	0.3172	0.4244	0.5662	0.7534	1.0000	1.748	3.026	5.188	8.814	14.84
32	0.0651	0.0893	0.1220	0.1661	0.2257	0.3056	0.4128	0.5559	0.7466	1.0000	1.780	3.136	5.471	9.455	16.19
33	0.0598	0.0828	0.1142	0.1571	0.2154	0.2945	0.4015	0.5458	0.7398	1.0000	1.812	3.250	5.770	10.14	17.66
34	0.0549	0.0767	0.1059	0.1485	0.2056	0.2838	0.3906	0.5359	0.7331	1.0000	1.845	3.368	6.084	10.88	19.27
35	0.0504	0.0712	0.1001	0.1404	0.1963	0.2735	0.3799	0.5261	0.7264	1.0000	1.879	3.491	6.416	11.67	21.02
36	0.0463	0.0660	0.0938	0.1328	0.1874	0.2636	0.3696	0.5166	0.7198	1.0000	1.913	3.618	6.766	12.52	22.93
37	0.0425	0.0612	0.0878	0.1255	0.1788	0.2540	0.3595	0.5072	0.7133	1.0000	1.948	3.749	7.135	13.43	25.01
38	0.0390	0.0567	0.0822	0.1187	0.1707	0.2447	0.3497	0.4979	0.7068	1.0000	1.983	3.886	7.525	14.41	27.29
39	0.0358	0.0526	0.0770	0.1122	0.1630	0.2358	0.3401	0.4889	0.7004	1.0000	2.019	4.027	7.935	15.46	29.77
40	0.0329	0.0488	0.0721	0.1061	0.1555	0.2273	0.3309	0.4800	0.6940	1.0000	2.056	4.173	8.368	16.58	32.47

^a See page vi for an explanation of the proper use of this table.

Table S-11
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 11%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9099	0.9189	0.9279	0.9369	0.9459	0.9550	0.9640	0.9730	0.9820	0.9910	1.009	1.027	1.045	1.063	1.081					
2	0.8279	0.8444	0.8611	0.8779	0.8948	0.9119	0.9292	0.9467	0.9643	0.9821	1.018	1.055	1.092	1.130	1.169					
3	0.7533	0.7759	0.7990	0.8225	0.8464	0.8709	0.8957	0.9211	0.9469	0.9732	1.027	1.083	1.141	1.201	1.263					
4	0.6855	0.7130	0.7414	0.7706	0.8007	0.8316	0.8635	0.8962	0.9299	0.9644	1.037	1.113	1.193	1.277	1.366					
5	0.6237	0.6552	0.6880	0.7220	0.7574	0.7942	0.8323	0.8720	0.9131	0.9558	1.046	1.143	1.246	1.358	1.477					
6	0.5675	0.6021	0.6384	0.6765	0.7165	0.7584	0.8024	0.8484	0.8966	0.9471	1.055	1.174	1.303	1.443	1.596					
7	0.5164	0.5533	0.5924	0.6338	0.6777	0.7242	0.7734	0.8255	0.8805	0.9386	1.074	1.238	1.423	1.631	1.866					
8	0.4699	0.5084	0.5497	0.5939	0.6411	0.6916	0.7456	0.8032	0.8646	0.9302	1.074	1.271	1.487	1.734	2.017					
9	0.4275	0.4672	0.5101	0.5564	0.6065	0.6605	0.7187	0.7815	0.8490	0.9218	1.084	1.271	1.487	1.843	2.181					
10	0.3890	0.4293	0.4733	0.5213	0.5737	0.6307	0.6928	0.7603	0.8337	0.9135	1.094	1.306	1.554	1.860	2.357					
11	0.3540	0.3945	0.4392	0.4884	0.5427	0.6023	0.6678	0.7398	0.8187	0.9052	1.104	1.341	1.624	1.960	2.549					
12	0.3221	0.3625	0.4075	0.4576	0.5133	0.5752	0.6438	0.7198	0.8040	0.8971	1.114	1.377	1.697	2.083	2.755					
13	0.2931	0.3331	0.3782	0.4288	0.4856	0.5493	0.6206	0.7003	0.7895	0.8890	1.124	1.414	1.773	2.214	2.979					
14	0.2667	0.3061	0.3509	0.4017	0.4593	0.5245	0.5982	0.6814	0.7753	0.8810	1.134	1.453	1.853	2.354	3.220					
15	0.2426	0.2813	0.3256	0.3764	0.4345	0.5009	0.5766	0.6630	0.7613	0.8731	1.144	1.492	1.937	2.503	3.481					
16	0.2208	0.2585	0.3022	0.3527	0.4110	0.4783	0.5559	0.6451	0.7476	0.8652	1.154	1.532	2.024	2.660	3.763					
17	0.2009	0.2375	0.2804	0.3304	0.3888	0.4568	0.5358	0.6276	0.7341	0.8574	1.165	1.574	2.115	2.828	4.069					
18	0.1828	0.2183	0.2602	0.3096	0.3678	0.4362	0.5165	0.6107	0.7209	0.8497	1.175	1.616	2.210	3.007	4.399					
19	0.1663	0.2006	0.2414	0.2901	0.3479	0.4166	0.4979	0.5942	0.7079	0.8420	1.186	1.660	2.310	3.196	4.755					
20	0.1513	0.1843	0.2240	0.2718	0.3291	0.3978	0.4800	0.5781	0.6951	0.8344	1.196	1.705	2.414	3.398	5.141					
21	0.1377	0.1694	0.2079	0.2546	0.3113	0.3799	0.4627	0.5625	0.6826	0.8269	1.207	1.751	2.523	3.612	5.558					
22	0.1253	0.1556	0.1929	0.2386	0.2945	0.3628	0.4460	0.5473	0.6703	0.8195	1.218	1.798	2.636	3.840	6.008					
23	0.1140	0.1430	0.1790	0.2235	0.2786	0.3464	0.4299	0.5325	0.6582	0.8121	1.229	1.847	2.755	4.082	6.495					
24	0.1037	0.1314	0.1661	0.2094	0.2635	0.3308	0.4144	0.5181	0.6464	0.8048	1.240	1.897	2.879	4.339	7.022					
25	0.0944	0.1208	0.1541	0.1962	0.2493	0.3159	0.3995	0.5041	0.6347	0.7975	1.251	1.948	3.009	4.613	7.591					
26	0.0858	0.1110	0.1430	0.1839	0.2358	0.3017	0.3851	0.4905	0.6233	0.7903	1.263	2.000	3.144	4.904	8.207					
27	0.0782	0.1020	0.1327	0.1723	0.2230	0.2881	0.3712	0.4772	0.6121	0.7832	1.274	2.055	3.286	5.213	8.872					
28	0.0711	0.0937	0.1231	0.1614	0.2110	0.2751	0.3579	0.4643	0.6010	0.7762	1.285	2.110	3.434	5.542	9.592					
29	0.0647	0.0861	0.1143	0.1512	0.1996	0.2627	0.3450	0.4518	0.5902	0.7692	1.297	2.167	3.589	5.891	10.37					
30	0.0589	0.0791	0.1060	0.1417	0.1888	0.2509	0.3325	0.4396	0.5796	0.7622	1.309	2.226	3.750	6.263	11.21					
31	0.0536	0.0727	0.0984	0.1327	0.1786	0.2396	0.3205	0.4277	0.5691	0.7554	1.321	2.286	3.919	6.658	12.12					
32	0.0487	0.0668	0.0913	0.1244	0.1689	0.2288	0.3090	0.4161	0.5589	0.7486	1.332	2.348	4.096	7.078	13.10					
33	0.0444	0.0614	0.0847	0.1165	0.1598	0.2185	0.2979	0.4049	0.5488	0.7418	1.344	2.411	4.280	7.524	14.16					
34	0.0404	0.0564	0.0786	0.1092	0.1512	0.2086	0.2871	0.3939	0.5389	0.7351	1.357	2.476	4.473	7.998	15.31					
35	0.0367	0.0518	0.0729	0.1023	0.1430	0.1993	0.2768	0.3833	0.5292	0.7285	1.369	2.543	4.674	8.503	16.55					
36	0.0334	0.0476	0.0677	0.0958	0.1353	0.1903	0.2668	0.3729	0.5197	0.7220	1.381	2.612	4.885	9.039	17.90					
37	0.0304	0.0438	0.0628	0.0898	0.1280	0.1817	0.2572	0.3629	0.5103	0.7154	1.394	2.682	5.105	9.609	19.35					
38	0.0277	0.0402	0.0583	0.0841	0.1210	0.1735	0.2479	0.3530	0.5011	0.7090	1.406	2.755	5.335	10.22	20.92					
39	0.0252	0.0370	0.0541	0.0788	0.1145	0.1657	0.2390	0.3435	0.4921	0.7026	1.419	2.829	5.575	10.86	22.61					
40	0.0229	0.0340	0.0502	0.0739	0.1083	0.1582	0.2304	0.3342	0.4832	0.6963	1.432	2.906	5.826	11.54						

^a See page vi for an explanation of the proper use of this table.

Table S-12
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 12%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.9018	0.9107	0.9196	0.9286	0.9375	0.9464	0.9554	0.9643	0.9732	0.9821	1.000	1.018	1.036	1.054	1.071					
2	0.8132	0.8294	0.8457	0.8622	0.8789	0.8957	0.9127	0.9298	0.9471	0.9646	1.000	1.036	1.073	1.110	1.148					
3	0.7333	0.7553	0.7778	0.8007	0.8240	0.8477	0.8720	0.8966	0.9218	0.9474	1.000	1.055	1.111	1.169	1.230					
4	0.6613	0.6879	0.7153	0.7435	0.7725	0.8023	0.8330	0.8646	0.8971	0.9305	1.000	1.073	1.151	1.232	1.318					
5	0.5964	0.6265	0.6578	0.6904	0.7242	0.7593	0.7958	0.8337	0.8731	0.9138	1.000	1.093	1.192	1.298	1.412					
6	0.5378	0.5705	0.6049	0.6410	0.6789	0.7187	0.7603	0.8040	0.8497	0.8975	1.000	1.112	1.234	1.368	1.513					
7	0.4850	0.5196	0.5563	0.5953	0.6365	0.6802	0.7264	0.7752	0.8269	0.8815	1.000	1.132	1.278	1.441	1.621					
8	0.4373	0.4732	0.5116	0.5527	0.5967	0.6437	0.6939	0.7476	0.8048	0.8658	1.000	1.152	1.324	1.518	1.737					
9	0.3944	0.4310	0.4705	0.5133	0.5594	0.6092	0.6630	0.7209	0.7832	0.8503	1.000	1.173	1.371	1.599	1.861					
10	0.3557	0.3925	0.4327	0.4766	0.5245	0.5766	0.6334	0.6951	0.7622	0.8351	1.000	1.194	1.420	1.685	1.994					
11	0.3207	0.3574	0.3979	0.4426	0.4917	0.5457	0.6051	0.6703	0.7418	0.8202	1.000	1.215	1.471	1.775	2.136					
12	0.2892	0.3255	0.3660	0.4109	0.4610	0.5165	0.5781	0.6464	0.7219	0.8056	1.000	1.237	1.524	1.871	2.289					
13	0.2608	0.2965	0.3365	0.3816	0.4321	0.4888	0.5523	0.6233	0.7026	0.7912	1.000	1.259	1.578	1.971	2.452					
14	0.2352	0.2700	0.3095	0.3543	0.4051	0.4626	0.5276	0.6010	0.6838	0.7770	1.000	1.281	1.634	2.076	2.627					
15	0.2121	0.2458	0.2846	0.3290	0.3788	0.4378	0.5041	0.5795	0.6655	0.7632	1.000	1.304	1.693	2.188	2.815					
16	0.1913	0.2239	0.2618	0.3055	0.3561	0.4144	0.4816	0.5588	0.6476	0.7495	1.000	1.327	1.753	2.305	3.016					
17	0.1725	0.2039	0.2407	0.2837	0.3338	0.3922	0.4601	0.5389	0.6303	0.7362	1.000	1.351	1.816	2.428	3.231					
18	0.1555	0.1857	0.2214	0.2634	0.3130	0.3712	0.4395	0.5196	0.6134	0.7230	1.000	1.375	1.881	2.558	3.462					
19	0.1403	0.1691	0.2036	0.2446	0.2934	0.3513	0.4199	0.5011	0.5970	0.7101	1.000	1.400	1.948	2.695	3.709					
20	0.1265	0.1540	0.1872	0.2271	0.2751	0.3325	0.4012	0.4832	0.5810	0.6974	1.000	1.425	2.017	2.840	3.974					
21	0.1141	0.1403	0.1722	0.2109	0.2579	0.3147	0.3832	0.4659	0.5654	0.6850	1.000	1.450	2.089	2.992	4.258					
22	0.1029	0.1278	0.1584	0.1959	0.2418	0.2978	0.3661	0.4493	0.5503	0.6727	1.000	1.476	2.164	3.152	4.562					
23	0.0928	0.1164	0.1456	0.1819	0.2266	0.2819	0.3498	0.4332	0.5355	0.6607	1.000	1.502	2.241	3.321	4.888					
24	0.0837	0.1060	0.1339	0.1688	0.2125	0.2668	0.3342	0.4178	0.5212	0.6489	1.000	1.529	2.321	3.499	5.237					
25	0.0754	0.0965	0.1232	0.1568	0.1992	0.2525	0.3193	0.4029	0.5072	0.6373	1.000	1.557	2.404	3.686	5.612					
26	0.0680	0.0879	0.1133	0.1456	0.1867	0.2389	0.3050	0.3885	0.4937	0.6260	1.000	1.584	2.490	3.884	6.012					
27	0.0613	0.0800	0.1042	0.1352	0.1751	0.2261	0.2914	0.3746	0.4804	0.6148	1.000	1.613	2.579	4.092	6.442					
28	0.0553	0.0729	0.0958	0.1256	0.1641	0.2140	0.2784	0.3612	0.4676	0.6038	1.000	1.641	2.671	4.311	6.902					
29	0.0499	0.0664	0.0881	0.1166	0.1539	0.2026	0.2660	0.3483	0.4550	0.5930	1.000	1.671	2.767	4.542	7.395					
30	0.0450	0.0605	0.0810	0.1083	0.1443	0.1917	0.2541	0.3359	0.4428	0.5824	1.000	1.701	2.865	4.785	7.923					
31	0.0406	0.0551	0.0745	0.1005	0.1352	0.1814	0.2427	0.3239	0.4310	0.5720	1.000	1.731	2.968	5.042	8.489					
32	0.0366	0.0501	0.0685	0.0933	0.1268	0.1717	0.2319	0.3123	0.4194	0.5618	1.000	1.762	3.074	5.312	9.095					
33	0.0330	0.0457	0.0630	0.0867	0.1189	0.1625	0.2215	0.3012	0.4082	0.5518	1.000	1.793	3.184	5.596	9.745					
34	0.0298	0.0416	0.0579	0.0805	0.1114	0.1538	0.2117	0.2904	0.3973	0.5419	1.000	1.825	3.297	5.896	10.44					
35	0.0268	0.0379	0.0533	0.0747	0.1045	0.1456	0.2022	0.2800	0.3866	0.5322	1.000	1.858	3.415	6.212	11.19					
36	0.0242	0.0345	0.0490	0.0694	0.0979	0.1378	0.1932	0.2700	0.3763	0.5227	1.000	1.891	3.537	6.545	11.99					
37	0.0218	0.0314	0.0451	0.0644	0.0918	0.1304	0.1846	0.2604	0.3662	0.5134	1.000	1.925	3.663	6.896	12.84					
38	0.0197	0.0286	0.0415	0.0598	0.0861	0.1234	0.1763	0.2511	0.3564	0.5042	1.000	1.959	3.794	7.265	13.76					
39	0.0177	0.0261	0.0381	0.0556	0.0807	0.1168	0.1684	0.2421	0.3468	0.4952	1.000	1.994	3.930	7.654	14.74					
40	0.0160	0.0237	0.0351	0.0516	0.0757	0.1105	0.1609	0.2335	0.3376	0.4864	1.000	2.030	4.070	8.064	15.80					

^a See page vi for an explanation of the proper use of this table.

Table S-13
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 13%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8938	0.9027	0.9115	0.9204	0.9292	0.9381	0.9469	0.9558	0.9646	0.9735	0.9912	1.009	1.027	1.044	1.062					
2	0.7989	0.8148	0.8308	0.8471	0.8634	0.8799	0.8966	0.9135	0.9305	0.9476	0.9824	1.018	1.054	1.090	1.128					
3	0.7141	0.7355	0.7573	0.7796	0.8023	0.8254	0.8490	0.8730	0.8975	0.9224	0.9737	1.027	1.082	1.139	1.198					
4	0.6382	0.6639	0.6903	0.7175	0.7455	0.7743	0.8039	0.8344	0.8657	0.8980	0.9651	1.036	1.110	1.189	1.272					
5	0.5704	0.5993	0.6292	0.6604	0.6927	0.7263	0.7612	0.7975	0.8351	0.8741	0.9565	1.045	1.140	1.242	1.351					
6	0.5099	0.5409	0.5735	0.6078	0.6437	0.6813	0.7208	0.7625	0.8055	0.8509	0.9481	1.054	1.170	1.297	1.434					
7	0.4557	0.4883	0.5228	0.5594	0.5981	0.6391	0.6826	0.7285	0.7770	0.8283	0.9397	1.064	1.201	1.354	1.523					
8	0.4073	0.4407	0.4765	0.5148	0.5558	0.5995	0.6463	0.6962	0.7495	0.8063	0.9314	1.073	1.233	1.414	1.617					
9	0.3641	0.3978	0.4343	0.4738	0.5164	0.5624	0.6120	0.6654	0.7230	0.7849	0.9231	1.083	1.266	1.476	1.718					
10	0.3254	0.3591	0.3959	0.4361	0.4799	0.5276	0.5795	0.6360	0.6974	0.7641	0.9149	1.092	1.300	1.542	1.824					
11	0.2909	0.3241	0.3609	0.4013	0.4459	0.4949	0.5487	0.6079	0.6727	0.7438	0.9068	1.102	1.334	1.610	1.937					
12	0.2600	0.2926	0.3289	0.3694	0.4143	0.4642	0.5196	0.5810	0.6489	0.7241	0.8988	1.112	1.369	1.681	2.057					
13	0.2324	0.2641	0.2998	0.3399	0.3850	0.4355	0.4920	0.5553	0.6259	0.7048	0.8909	1.121	1.406	1.756	2.184					
14	0.2077	0.2384	0.2733	0.3129	0.3577	0.4085	0.4659	0.5307	0.6038	0.6861	0.8830	1.131	1.443	1.833	2.320					
15	0.1856	0.2152	0.2491	0.2880	0.3324	0.3823	0.4411	0.5072	0.5824	0.6679	0.8752	1.141	1.481	1.914	2.463					
16	0.1659	0.1942	0.2271	0.2650	0.3089	0.3595	0.4177	0.4848	0.5618	0.6502	0.8674	1.151	1.521	1.999	2.616					
17	0.1483	0.1753	0.2070	0.2439	0.2870	0.3372	0.3955	0.4633	0.5419	0.6329	0.8598	1.162	1.561	2.088	2.778					
18	0.1325	0.1583	0.1887	0.2245	0.2667	0.3163	0.3745	0.4428	0.5227	0.6161	0.8521	1.172	1.603	2.180	2.950					
19	0.1185	0.1429	0.1720	0.2066	0.2478	0.2967	0.3547	0.4232	0.5042	0.5998	0.8446	1.182	1.645	2.277	3.133					
20	0.1059	0.1290	0.1567	0.1902	0.2303	0.2783	0.3358	0.4045	0.4864	0.5838	0.8371	1.193	1.689	2.377	3.327					
21	0.0946	0.1164	0.1429	0.1750	0.2140	0.2611	0.3180	0.3866	0.4691	0.5683	0.8297	1.203	1.734	2.482	3.533					
22	0.0846	0.1051	0.1302	0.1611	0.1988	0.2449	0.3011	0.3695	0.4525	0.5532	0.8224	1.214	1.780	2.592	3.752					
23	0.0756	0.0948	0.1187	0.1482	0.1847	0.2297	0.2851	0.3531	0.4365	0.5386	0.8151	1.225	1.827	2.707	3.984					
24	0.0676	0.0856	0.1082	0.1364	0.1717	0.2155	0.2700	0.3375	0.4211	0.5243	0.8079	1.235	1.875	2.827	4.231					
25	0.0604	0.0773	0.0986	0.1256	0.1595	0.2022	0.2556	0.3226	0.4062	0.5103	0.8007	1.246	1.925	2.952	4.493					
26	0.0540	0.0698	0.0899	0.1156	0.1482	0.1896	0.2421	0.3083	0.3918	0.4968	0.7936	1.257	1.976	3.082	4.772					
27	0.0483	0.0630	0.0819	0.1064	0.1377	0.1779	0.2292	0.2947	0.3779	0.4836	0.7866	1.269	2.029	3.219	5.067					
28	0.0431	0.0568	0.0747	0.0979	0.1280	0.1669	0.2170	0.2816	0.3645	0.4708	0.7797	1.280	2.083	3.361	5.381					
29	0.0386	0.0513	0.0681	0.0901	0.1189	0.1565	0.2055	0.2692	0.3516	0.4583	0.7728	1.291	2.138	3.510	5.715					
30	0.0345	0.0463	0.0621	0.0829	0.1105	0.1468	0.1946	0.2573	0.3392	0.4461	0.7659	1.303	2.195	3.665	6.069					
31	0.0308	0.0418	0.0566	0.0763	0.1027	0.1377	0.1843	0.2459	0.3272	0.4343	0.7591	1.314	2.253	3.827	6.444					
32	0.0275	0.0377	0.0516	0.0702	0.0954	0.1292	0.1745	0.2350	0.3156	0.4227	0.7524	1.326	2.313	3.997	6.844					
33	0.0246	0.0341	0.0470	0.0646	0.0886	0.1212	0.1652	0.2246	0.3044	0.4115	0.7458	1.337	2.374	4.174	7.268					
34	0.0220	0.0307	0.0428	0.0595	0.0824	0.1137	0.1565	0.2147	0.2937	0.4006	0.7392	1.349	2.437	4.358	7.718					
35	0.0197	0.0277	0.0390	0.0548	0.0765	0.1066	0.1481	0.2052	0.2833	0.3899	0.7326	1.361	2.502	4.551	8.196					
36	0.0176	0.0250	0.0356	0.0504	0.0711	0.1000	0.1403	0.1961	0.2732	0.3796	0.7261	1.373	2.568	4.753	8.704					
37	0.0157	0.0226	0.0324	0.0464	0.0661	0.0938	0.1328	0.1874	0.2636	0.3695	0.7197	1.385	2.637	4.963	9.243					
38	0.0140	0.0204	0.0296	0.0427	0.0614	0.0880	0.1258	0.1791	0.2542	0.3597	0.7134	1.398	2.707	5.182	9.815					
39	0.0125	0.0184	0.0270	0.0393	0.0571	0.0826	0.1191	0.1712	0.2452	0.3502	0.7070	1.410	2.778	5.412	10.42					
40	0.0112	0.0166	0.0246	0.0362	0.0530	0.0775	0.1128	0.1636	0.2366	0.3409	0.7008	1.423	2.852	5.651	11.07					

^a See page vi for an explanation of the proper use of this table.

Table S-14
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 14%

Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%
1	0.8860	0.8947	0.9035	0.9123	0.9211	0.9298	0.9386	0.9474	0.9561	0.9649	0.9825	1.000	1.018	1.035	1.053
2	0.7849	0.8006	0.8163	0.8323	0.8483	0.8646	0.8810	0.8975	0.9142	0.9311	0.9652	1.000	1.035	1.071	1.108
3	0.6954	0.7163	0.7376	0.7593	0.7814	0.8039	0.8259	0.8503	0.8741	0.8984	0.9483	1.000	1.054	1.109	1.166
4	0.6161	0.6409	0.6664	0.6927	0.7197	0.7475	0.7761	0.8055	0.8358	0.8669	0.9316	1.000	1.072	1.148	1.228
5	0.5459	0.5734	0.6021	0.6319	0.6629	0.6950	0.7284	0.7631	0.7991	0.8364	0.9153	1.000	1.091	1.188	1.292
6	0.4836	0.5131	0.5440	0.5765	0.6105	0.6463	0.6837	0.7230	0.7641	0.8071	0.8992	1.000	1.110	1.230	1.360
7	0.4285	0.4591	0.4915	0.5259	0.5623	0.6009	0.6417	0.6849	0.7306	0.7788	0.8835	1.000	1.129	1.273	1.432
8	0.3796	0.4107	0.4441	0.4798	0.5179	0.5587	0.6023	0.6489	0.6985	0.7515	0.8680	1.000	1.149	1.318	1.507
9	0.3363	0.3675	0.4012	0.4377	0.4770	0.5195	0.5653	0.6147	0.6679	0.7251	0.8527	1.000	1.169	1.364	1.587
10	0.2980	0.3288	0.3625	0.3993	0.4394	0.4831	0.5306	0.5824	0.6386	0.6996	0.8378	1.000	1.190	1.412	1.670
11	0.2640	0.2942	0.3275	0.3643	0.4047	0.4492	0.4980	0.5517	0.6106	0.6751	0.8231	1.000	1.211	1.461	1.758
12	0.2339	0.2632	0.2959	0.3323	0.3727	0.4176	0.4675	0.5227	0.5838	0.6514	0.8086	1.000	1.232	1.513	1.851
13	0.2072	0.2355	0.2674	0.3032	0.3433	0.3883	0.4388	0.4952	0.5582	0.6286	0.7945	1.000	1.254	1.566	1.948
14	0.1836	0.2107	0.2416	0.2766	0.3162	0.3611	0.4118	0.4691	0.5337	0.6065	0.7805	1.000	1.276	1.621	2.051
15	0.1626	0.1886	0.2183	0.2523	0.2913	0.3357	0.3855	0.4444	0.5103	0.5852	0.7668	1.000	1.298	1.677	2.158
16	0.1441	0.1687	0.1972	0.2302	0.2663	0.3122	0.3628	0.4210	0.4879	0.5647	0.7534	1.000	1.321	1.736	2.272
17	0.1277	0.1509	0.1782	0.2100	0.2471	0.2903	0.3405	0.3989	0.4665	0.5449	0.7402	1.000	1.344	1.797	2.392
18	0.1131	0.1351	0.1610	0.1916	0.2276	0.2699	0.3196	0.3779	0.4461	0.5258	0.7272	1.000	1.368	1.860	2.518
19	0.1002	0.1208	0.1455	0.1748	0.2096	0.2510	0.3000	0.3580	0.4265	0.5073	0.7144	1.000	1.392	1.926	2.650
20	0.0888	0.1081	0.1314	0.1594	0.1931	0.2334	0.2816	0.3391	0.4078	0.4895	0.7019	1.000	1.416	1.993	2.790
21	0.0787	0.0967	0.1187	0.1454	0.1778	0.2170	0.2643	0.3213	0.3899	0.4723	0.6896	1.000	1.441	2.063	2.936
22	0.0697	0.0866	0.1073	0.1327	0.1638	0.2018	0.2480	0.3044	0.3728	0.4558	0.6775	1.000	1.466	2.135	3.091
23	0.0617	0.0774	0.0969	0.1210	0.1508	0.1876	0.2328	0.2884	0.3564	0.4398	0.6656	1.000	1.492	2.210	3.254
24	0.0547	0.0693	0.0876	0.1104	0.1389	0.1744	0.2185	0.2732	0.3408	0.4243	0.6539	1.000	1.518	2.288	3.425
25	0.0485	0.0620	0.0791	0.1007	0.1280	0.1622	0.2051	0.2588	0.3259	0.4094	0.6424	1.000	1.545	2.368	3.605
26	0.0429	0.0555	0.0715	0.0919	0.1179	0.1508	0.1925	0.2452	0.3116	0.3951	0.6312	1.000	1.572	2.451	3.795
27	0.0380	0.0496	0.0646	0.0838	0.1086	0.1402	0.1807	0.2323	0.2979	0.3812	0.6201	1.000	1.599	2.537	3.995
28	0.0337	0.0444	0.0584	0.0765	0.1000	0.1304	0.1696	0.2201	0.2848	0.3678	0.6092	1.000	1.627	2.626	4.205
29	0.0299	0.0397	0.0527	0.0698	0.0921	0.1212	0.1592	0.2085	0.2724	0.3549	0.5985	1.000	1.656	2.719	4.426
30	0.0265	0.0356	0.0476	0.0637	0.0848	0.1127	0.1494	0.1975	0.2604	0.3425	0.5880	1.000	1.685	2.814	4.659
31	0.0234	0.0318	0.0430	0.0581	0.0781	0.1048	0.1402	0.1871	0.2490	0.3305	0.5777	1.000	1.715	2.913	4.904
32	0.0208	0.0285	0.0389	0.0530	0.0720	0.0975	0.1316	0.1773	0.2381	0.3189	0.5676	1.000	1.745	3.015	5.162
33	0.0184	0.0255	0.0351	0.0483	0.0653	0.0906	0.1235	0.1679	0.2276	0.3077	0.5576	1.000	1.775	3.121	5.434
34	0.0163	0.0228	0.0317	0.0441	0.0610	0.0843	0.1160	0.1591	0.2176	0.2969	0.5478	1.000	1.806	3.230	5.720
35	0.0144	0.0204	0.0287	0.0402	0.0552	0.0783	0.1088	0.1507	0.2081	0.2865	0.5382	1.000	1.838	3.344	6.021
36	0.0128	0.0182	0.0259	0.0367	0.0518	0.0729	0.1022	0.1428	0.1990	0.2764	0.5288	1.000	1.870	3.461	6.338
37	0.0113	0.0163	0.0234	0.0335	0.0477	0.0677	0.0959	0.1353	0.1902	0.2667	0.5195	1.000	1.903	3.582	6.672
38	0.0100	0.0146	0.0212	0.0305	0.0439	0.0630	0.0900	0.1282	0.1819	0.2574	0.5104	1.000	1.937	3.708	7.023
39	0.0089	0.0131	0.0191	0.0279	0.0405	0.0586	0.0845	0.1214	0.1739	0.2483	0.5014	1.000	1.970	3.838	7.392
40	0.0079	0.0117	0.0173	0.0254	0.0373	0.0545	0.0793	0.1150	0.1663	0.2386	0.4926	1.000	2.005	3.973	7.781

^a See page vi for an explanation of the proper use of this table.

Table S-15
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 15%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8783	0.8870	0.8957	0.9043	0.9130	0.9217	0.9304	0.9391	0.9478	0.9565	0.9739	0.9913	1.009	1.026	1.043					
2	0.7713	0.7867	0.8022	0.8178	0.8336	0.8496	0.8657	0.8820	0.8984	0.9149	0.9485	0.9827	1.017	1.053	1.089					
3	0.6774	0.6978	0.7185	0.7396	0.7612	0.7831	0.8055	0.8283	0.8515	0.8752	0.9238	0.9741	1.026	1.080	1.136					
4	0.5950	0.6189	0.6435	0.6689	0.6950	0.7218	0.7495	0.7779	0.8071	0.8371	0.8997	0.9657	1.035	1.109	1.186					
5	0.5225	0.5489	0.5764	0.6049	0.6345	0.6653	0.6973	0.7305	0.7650	0.8007	0.8762	0.9573	1.044	1.137	1.237					
6	0.4589	0.4869	0.5162	0.5470	0.5794	0.6133	0.6488	0.6860	0.7251	0.7659	0.8533	0.9489	1.053	1.167	1.291					
7	0.4031	0.4318	0.4624	0.4947	0.5290	0.5653	0.6037	0.6443	0.6872	0.7326	0.8311	0.9407	1.062	1.198	1.347					
8	0.3540	0.3830	0.4141	0.4474	0.4830	0.5210	0.5617	0.6051	0.6514	0.7007	0.8094	0.9325	1.072	1.229	1.406					
9	0.3109	0.3397	0.3709	0.4046	0.4410	0.4803	0.5226	0.5682	0.6174	0.6703	0.7883	0.9244	1.081	1.261	1.467					
10	0.2730	0.3013	0.3322	0.3659	0.4026	0.4427	0.4862	0.5337	0.5852	0.6413	0.7677	0.9164	1.090	1.294	1.531					
11	0.2398	0.2673	0.2975	0.3309	0.3676	0.4080	0.4524	0.5012	0.5546	0.6133	0.7477	0.9084	1.100	1.327	1.597					
12	0.2106	0.2370	0.2665	0.2992	0.3357	0.3761	0.4210	0.4707	0.5257	0.5866	0.7282	0.9005	1.109	1.362	1.666					
13	0.1850	0.2102	0.2387	0.2706	0.3065	0.3467	0.3917	0.4420	0.4983	0.5611	0.7092	0.8927	1.119	1.398	1.739					
14	0.1625	0.1865	0.2138	0.2447	0.2798	0.3195	0.3644	0.4151	0.4723	0.5367	0.6907	0.8849	1.129	1.434	1.815					
15	0.1427	0.1654	0.1915	0.2213	0.2555	0.2945	0.3391	0.3898	0.4478	0.5134	0.6727	0.8772	1.139	1.472	1.893					
16	0.1253	0.1467	0.1715	0.2002	0.2333	0.2715	0.3155	0.3661	0.4243	0.4910	0.6551	0.8696	1.149	1.510	1.976					
17	0.1101	0.1301	0.1536	0.1810	0.2130	0.2502	0.2935	0.3438	0.4021	0.4697	0.6380	0.8620	1.159	1.549	2.062					
18	0.0967	0.1154	0.1376	0.1637	0.1945	0.2306	0.2731	0.3229	0.3812	0.4493	0.6214	0.8545	1.169	1.590	2.151					
19	0.0849	0.1024	0.1232	0.1480	0.1776	0.2126	0.2541	0.3032	0.3613	0.4297	0.6052	0.8471	1.179	1.631	2.245					
20	0.0746	0.0908	0.1104	0.1339	0.1621	0.1960	0.2364	0.2848	0.3424	0.4111	0.5894	0.8397	1.189	1.674	2.342					
21	0.0655	0.0805	0.0988	0.1211	0.1480	0.1806	0.2200	0.2675	0.3246	0.3932	0.5740	0.8324	1.199	1.717	2.444					
22	0.0575	0.0714	0.0885	0.1095	0.1351	0.1665	0.2047	0.2512	0.3076	0.3761	0.5590	0.8252	1.210	1.762	2.551					
23	0.0505	0.0634	0.0793	0.0990	0.1234	0.1535	0.1904	0.2359	0.2916	0.3597	0.5445	0.8180	1.220	1.808	2.661					
24	0.0444	0.0562	0.0710	0.0895	0.1127	0.1414	0.1772	0.2215	0.2764	0.3441	0.5303	0.8109	1.231	1.855	2.777					
25	0.0390	0.0498	0.0636	0.0810	0.1029	0.1304	0.1649	0.2080	0.2619	0.3291	0.5164	0.8039	1.242	1.904	2.898					
26	0.0342	0.0442	0.0570	0.0732	0.0939	0.1202	0.1534	0.1954	0.2483	0.3148	0.5030	0.7969	1.252	1.953	3.024					
27	0.0300	0.0392	0.0510	0.0662	0.0858	0.1108	0.1427	0.1835	0.2353	0.3011	0.4898	0.7899	1.263	2.004	3.155					
28	0.0264	0.0348	0.0457	0.0599	0.0783	0.1021	0.1328	0.1723	0.2231	0.2880	0.4771	0.7831	1.274	2.057	3.293					
29	0.0232	0.0308	0.0409	0.0542	0.0715	0.0941	0.1236	0.1618	0.2114	0.2755	0.4646	0.7763	1.285	2.110	3.436					
30	0.0204	0.0274	0.0367	0.0490	0.0653	0.0867	0.1150	0.1520	0.2004	0.2635	0.4525	0.7695	1.297	2.165	3.585					
31	0.0179	0.0243	0.0328	0.0443	0.0596	0.0800	0.1070	0.1427	0.1899	0.2521	0.4407	0.7628	1.308	2.222	3.741					
32	0.0157	0.0215	0.0294	0.0401	0.0544	0.0737	0.0995	0.1340	0.1800	0.2411	0.4292	0.7562	1.319	2.280	3.904					
33	0.0138	0.0191	0.0263	0.0362	0.0497	0.0679	0.0926	0.1259	0.1706	0.2306	0.4180	0.7496	1.331	2.339	4.073					
34	0.0121	0.0169	0.0236	0.0328	0.0454	0.0626	0.0862	0.1182	0.1617	0.2206	0.4071	0.7431	1.342	2.400	4.250					
35	0.0106	0.0150	0.0211	0.0296	0.0414	0.0577	0.0802	0.1110	0.1533	0.2110	0.3965	0.7366	1.354	2.463	4.435					
36	0.0093	0.0133	0.0189	0.0268	0.0378	0.0532	0.0746	0.1043	0.1453	0.2018	0.3861	0.7302	1.366	2.527	4.628					
37	0.0082	0.0118	0.0169	0.0242	0.0345	0.0490	0.0694	0.0979	0.1377	0.1931	0.3761	0.7239	1.378	2.593	4.829					
38	0.0072	0.0105	0.0152	0.0219	0.0315	0.0452	0.0646	0.0920	0.1305	0.1847	0.3662	0.7176	1.390	2.661	5.039					
39	0.0063	0.0093	0.0136	0.0198	0.0288	0.0417	0.0601	0.0864	0.1237	0.1766	0.3567	0.7113	1.402	2.730	5.258					
40	0.0056	0.0082	0.0122	0.0179	0.0263	0.0384	0.0559	0.0811	0.1173	0.1690	0.3474	0.7051	1.414	2.801	5.487					

^a See page vi for an explanation of the proper use of this table.

Table S-16
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 16

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8707	0.8793	0.8879	0.8966	0.9052	0.9138	0.9224	0.9310	0.9397	0.9483	0.9565	0.9658	1.000	1.017	1.034					
2	0.7581	0.7732	0.7884	0.8036	0.8193	0.8350	0.8508	0.8668	0.8830	0.8992	0.9322	0.9658	1.000	1.035	1.070					
3	0.6601	0.6799	0.7001	0.7207	0.7416	0.7630	0.7848	0.8070	0.8297	0.8527	0.9001	0.9492	1.000	1.053	1.107					
4	0.5747	0.5978	0.6216	0.6461	0.6713	0.6973	0.7239	0.7514	0.7796	0.8086	0.8690	0.9328	1.000	1.071	1.145					
5	0.5004	0.5257	0.5519	0.5793	0.6077	0.6371	0.6678	0.6996	0.7326	0.7668	0.8391	0.9167	1.000	1.089	1.185					
6	0.4357	0.4622	0.4901	0.5193	0.5500	0.5822	0.6160	0.6513	0.6884	0.7271	0.8101	0.9009	1.000	1.108	1.226					
7	0.3794	0.4064	0.4352	0.4656	0.4979	0.5320	0.5682	0.6064	0.6468	0.6895	0.7922	0.8854	1.000	1.127	1.268					
8	0.3303	0.3574	0.3864	0.4174	0.4507	0.4862	0.5241	0.5646	0.6078	0.6538	0.7552	0.8701	1.000	1.147	1.312					
9	0.2876	0.3143	0.3431	0.3743	0.4079	0.4443	0.4834	0.5256	0.5711	0.6200	0.7292	0.8551	1.000	1.166	1.357					
10	0.2504	0.2763	0.3046	0.3355	0.3692	0.4060	0.4459	0.4894	0.5366	0.5880	0.7040	0.8404	1.000	1.186	1.404					
11	0.2180	0.2430	0.2705	0.3008	0.3342	0.3710	0.4113	0.4556	0.5043	0.5575	0.6798	0.8259	1.000	1.207	1.452					
12	0.1898	0.2137	0.2402	0.2697	0.3025	0.3390	0.3794	0.4242	0.4738	0.5287	0.6563	0.8116	1.000	1.228	1.502					
13	0.1653	0.1879	0.2133	0.2418	0.2738	0.3098	0.3500	0.3950	0.4452	0.5014	0.6337	0.7976	1.000	1.249	1.554					
14	0.1439	0.1652	0.1894	0.2168	0.2479	0.2831	0.3228	0.3677	0.4184	0.4754	0.6118	0.7839	1.000	1.270	1.607					
15	0.1253	0.1453	0.1681	0.1944	0.2244	0.2587	0.2978	0.3424	0.3931	0.4508	0.5907	0.7704	1.000	1.292	1.663					
16	0.1091	0.1277	0.1493	0.1743	0.2031	0.2364	0.2747	0.3188	0.3694	0.4275	0.5704	0.7571	1.000	1.315	1.720					
17	0.0950	0.1123	0.1326	0.1562	0.1838	0.2160	0.2534	0.2968	0.3471	0.4054	0.5507	0.7440	1.000	1.337	1.779					
18	0.0827	0.0988	0.1177	0.1401	0.1664	0.1974	0.2337	0.2763	0.3262	0.3844	0.5317	0.7312	1.000	1.360	1.841					
19	0.0720	0.0868	0.1045	0.1256	0.1506	0.1803	0.2156	0.2572	0.3065	0.3646	0.5134	0.7186	1.000	1.384	1.904					
20	0.0627	0.0764	0.0928	0.1126	0.1363	0.1648	0.1988	0.2395	0.2880	0.3457	0.4957	0.7062	1.000	1.408	1.970					
21	0.0546	0.0671	0.0824	0.1009	0.1234	0.1506	0.1834	0.2230	0.2706	0.3278	0.4786	0.6940	1.000	1.432	2.038					
22	0.0475	0.0590	0.0732	0.0905	0.1117	0.1376	0.1692	0.2076	0.2543	0.3109	0.4621	0.6821	1.000	1.457	2.108					
23	0.0414	0.0519	0.0650	0.0811	0.1011	0.1257	0.1561	0.1933	0.2389	0.2948	0.4462	0.6703	1.000	1.482	2.181					
24	0.0360	0.0456	0.0577	0.0727	0.0915	0.1149	0.1440	0.1800	0.2245	0.2795	0.4308	0.6588	1.000	1.507	2.256					
25	0.0314	0.0401	0.0512	0.0652	0.0828	0.1050	0.1328	0.1676	0.2110	0.2651	0.4159	0.6474	1.000	1.533	2.334					
26	0.0273	0.0353	0.0455	0.0585	0.0750	0.0959	0.1225	0.1560	0.1982	0.2514	0.4016	0.6362	1.000	1.560	2.414					
27	0.0238	0.0310	0.0404	0.0524	0.0679	0.0877	0.1130	0.1452	0.1863	0.2384	0.3977	0.6253	1.000	1.587	2.498					
28	0.0207	0.0273	0.0359	0.0470	0.0614	0.0801	0.1042	0.1352	0.1750	0.2260	0.3744	0.6145	1.000	1.614	2.584					
29	0.0180	0.0240	0.0318	0.0421	0.0556	0.0732	0.0961	0.1259	0.1645	0.2143	0.3614	0.6039	1.000	1.642	2.673					
30	0.0157	0.0211	0.0283	0.0378	0.0503	0.0669	0.0887	0.1172	0.1545	0.2033	0.3490	0.5935	1.000	1.670	2.765					
31	0.0137	0.0186	0.0251	0.0339	0.0456	0.0611	0.0818	0.1091	0.1452	0.1927	0.3369	0.5832	1.000	1.699	2.860					
32	0.0119	0.0163	0.0223	0.0304	0.0412	0.0559	0.0754	0.1016	0.1365	0.1828	0.3253	0.5732	1.000	1.728	2.959					
33	0.0104	0.0143	0.0198	0.0272	0.0373	0.0510	0.0696	0.0946	0.1282	0.1733	0.3141	0.5633	1.000	1.758	3.061					
34	0.0090	0.0126	0.0176	0.0244	0.0338	0.0466	0.0642	0.0881	0.1205	0.1644	0.3033	0.5536	1.000	1.788	3.167					
35	0.0079	0.0111	0.0156	0.0219	0.0306	0.0426	0.0592	0.0820	0.1132	0.1559	0.2928	0.5441	1.000	1.819	3.276					
36	0.0068	0.0098	0.0139	0.0196	0.0277	0.0390	0.0546	0.0763	0.1064	0.1478	0.2827	0.5347	1.000	1.850	3.389					
37	0.0060	0.0086	0.0123	0.0176	0.0251	0.0356	0.0504	0.0711	0.1000	0.1401	0.2730	0.5255	1.000	1.882	3.506					
38	0.0052	0.0075	0.0109	0.0158	0.0227	0.0325	0.0465	0.0662	0.0939	0.1329	0.2636	0.5164	1.000	1.915	3.626					
39	0.0045	0.0066	0.0097	0.0141	0.0205	0.0297	0.0429	0.0616	0.0883	0.1260	0.2545	0.5075	1.000	1.948	3.752					
40	0.0039	0.0058	0.0086	0.0127	0.0186	0.0272	0.0395	0.0574	0.0829	0.1195	0.2457	0.4987	1.000	1.981	3.881					

^a See page vi for an explanation of the proper use of this table.

Table S-17
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 17%

Period	Rate of Price Increase per Period															
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	
1	0.8632	0.8718	0.8803	0.8889	0.8974	0.9060	0.9145	0.9231	0.9316	0.9402	0.9573	0.9744	0.9915	1.009	1.026	
2	0.7452	0.7600	0.7750	0.7901	0.8054	0.8208	0.8364	0.8521	0.8679	0.8839	0.9164	0.9494	0.9830	1.017	1.052	
3	0.6433	0.6626	0.6823	0.7023	0.7228	0.7436	0.7649	0.7865	0.8086	0.8310	0.8772	0.9250	0.9746	1.026	1.079	
4	0.5553	0.5776	0.6006	0.6243	0.6487	0.6737	0.6995	0.7260	0.7533	0.7813	0.8397	0.9013	0.9662	1.035	1.107	
5	0.4794	0.5036	0.5288	0.5549	0.5821	0.6104	0.6397	0.6702	0.7018	0.7346	0.8038	0.8782	0.9580	1.043	1.135	
6	0.4138	0.4390	0.4655	0.4933	0.5224	0.5530	0.5850	0.6198	0.6538	0.6906	0.7695	0.8557	0.9498	1.052	1.164	
7	0.3572	0.3827	0.4098	0.4385	0.4688	0.5010	0.5350	0.5710	0.6091	0.6493	0.7366	0.8337	0.9417	1.061	1.194	
8	0.3084	0.3337	0.3608	0.3897	0.4208	0.4539	0.4893	0.5271	0.5674	0.6105	0.7051	0.8124	0.9336	1.070	1.225	
9	0.2662	0.2909	0.3176	0.3464	0.3776	0.4112	0.4475	0.4866	0.5286	0.5739	0.6750	0.7915	0.9257	1.080	1.256	
10	0.2298	0.2536	0.2796	0.3079	0.3389	0.3726	0.4092	0.4491	0.4925	0.5396	0.6461	0.7712	0.9177	1.089	1.288	
11	0.1984	0.2211	0.2461	0.2737	0.3041	0.3375	0.3743	0.4146	0.4588	0.5073	0.6185	0.7515	0.9099	1.098	1.321	
12	0.1712	0.1927	0.2167	0.2433	0.2729	0.3058	0.3423	0.3827	0.4275	0.4770	0.5921	0.7322	0.9021	1.108	1.355	
13	0.1478	0.1680	0.1908	0.2163	0.2449	0.2771	0.3130	0.3533	0.3982	0.4484	0.5668	0.7134	0.8944	1.117	1.390	
14	0.1276	0.1465	0.1679	0.1922	0.2198	0.2510	0.2863	0.3261	0.3710	0.4216	0.5426	0.6951	0.8868	1.127	1.425	
15	0.1102	0.1277	0.1478	0.1709	0.1973	0.2274	0.2618	0.3010	0.3456	0.3964	0.5194	0.6773	0.8792	1.136	1.462	
16	0.0951	0.1113	0.1301	0.1519	0.1770	0.2060	0.2394	0.2778	0.3220	0.3727	0.4972	0.6599	0.8717	1.146	1.499	
17	0.0821	0.0971	0.1146	0.1350	0.1589	0.1867	0.2190	0.2565	0.3000	0.3504	0.4759	0.6430	0.8642	1.156	1.538	
18	0.0709	0.0846	0.1009	0.1200	0.1426	0.1691	0.2002	0.2367	0.2794	0.3294	0.4556	0.6265	0.8568	1.166	1.577	
19	0.0612	0.0738	0.0888	0.1067	0.1280	0.1532	0.1831	0.2185	0.2604	0.3097	0.4375	0.6105	0.8495	1.176	1.618	
20	0.0528	0.0643	0.0782	0.0948	0.1148	0.1388	0.1675	0.2017	0.2426	0.2912	0.4175	0.5948	0.8423	1.186	1.659	
21	0.0456	0.0561	0.0688	0.0843	0.1031	0.1258	0.1532	0.1862	0.2260	0.2737	0.3996	0.5796	0.8351	1.196	1.702	
22	0.0394	0.0489	0.0606	0.0749	0.0925	0.1139	0.1401	0.1719	0.2105	0.2574	0.3826	0.5647	0.8279	1.206	1.745	
23	0.0340	0.0426	0.0533	0.0666	0.0830	0.1032	0.1281	0.1587	0.1961	0.2420	0.3662	0.5502	0.8208	1.216	1.790	
24	0.0293	0.0371	0.0469	0.0592	0.0745	0.0935	0.1172	0.1465	0.1827	0.2275	0.3506	0.5361	0.8138	1.227	1.836	
25	0.0253	0.0324	0.0413	0.0526	0.0668	0.0847	0.1071	0.1352	0.1702	0.2139	0.3356	0.5224	0.8069	1.237	1.883	
26	0.0219	0.0282	0.0364	0.0468	0.0600	0.0768	0.0980	0.1248	0.1586	0.2011	0.3212	0.5090	0.8000	1.248	1.931	
27	0.0189	0.0246	0.0320	0.0416	0.0538	0.0695	0.0896	0.1152	0.1477	0.1891	0.3075	0.4959	0.7931	1.258	1.981	
28	0.0163	0.0215	0.0282	0.0370	0.0483	0.0630	0.0819	0.1063	0.1376	0.1777	0.2944	0.4832	0.7864	1.269	2.032	
29	0.0141	0.0187	0.0248	0.0329	0.0434	0.0571	0.0749	0.0982	0.1282	0.1671	0.2818	0.4708	0.7796	1.280	2.084	
30	0.0121	0.0163	0.0219	0.0292	0.0389	0.0517	0.0685	0.0906	0.1195	0.1571	0.2698	0.4587	0.7730	1.291	2.137	
31	0.0105	0.0142	0.0192	0.0260	0.0349	0.0469	0.0627	0.0836	0.1113	0.1477	0.2582	0.4470	0.7664	1.302	2.192	
32	0.0090	0.0124	0.0169	0.0231	0.0313	0.0424	0.0573	0.0772	0.1037	0.1389	0.2472	0.4355	0.7598	1.313	2.248	
33	0.0078	0.0108	0.0149	0.0205	0.0281	0.0385	0.0524	0.0713	0.0966	0.1306	0.2366	0.4244	0.7533	1.324	2.306	
34	0.0067	0.0094	0.0131	0.0182	0.0252	0.0348	0.0479	0.0658	0.0900	0.1228	0.2265	0.4135	0.7469	1.336	2.365	
35	0.0058	0.0082	0.0116	0.0162	0.0227	0.0316	0.0438	0.0607	0.0838	0.1154	0.2168	0.4029	0.7405	1.347	2.426	
36	0.0050	0.0072	0.0102	0.0144	0.0203	0.0286	0.0401	0.0560	0.0781	0.1085	0.2076	0.3925	0.7342	1.359	2.488	
37	0.0043	0.0062	0.0090	0.0128	0.0182	0.0259	0.0367	0.0517	0.0728	0.1020	0.1987	0.3825	0.7279	1.370	2.552	
38	0.0037	0.0054	0.0079	0.0114	0.0164	0.0235	0.0335	0.0478	0.0678	0.0959	0.1902	0.3721	0.7217	1.382	2.617	
39	0.0032	0.0047	0.0069	0.0101	0.0147	0.0213	0.0307	0.0441	0.0632	0.0902	0.1821	0.3631	0.7155	1.394	2.684	
40	0.0028	0.0041	0.0061	0.0090	0.0132	0.0193	0.0280	0.0407	0.0588	0.0848	0.1743	0.3538	0.7094	1.406	2.753	

^a See page vi for an explanation of the proper use of this table.

Table S-18
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 18%

Period	Rate of Price Increase per Period															
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	
1	0.8559	0.8544	0.8729	0.8814	0.8898	0.8983	0.9068	0.9153	0.9237	0.9322	0.9492	0.9661	0.9831	1.000	1.017	
2	0.7326	0.7472	0.7619	0.7768	0.7918	0.8070	0.8222	0.8377	0.8533	0.8690	0.9009	0.9334	0.9664	1.000	1.034	
3	0.6271	0.6459	0.6651	0.6846	0.7046	0.7249	0.7456	0.7667	0.7882	0.8101	0.8551	0.9017	0.9500	1.000	1.052	
4	0.5367	0.5583	0.5805	0.6034	0.6269	0.6512	0.6761	0.7017	0.7281	0.7552	0.8116	0.8711	0.9339	1.000	1.070	
5	0.4594	0.4826	0.5067	0.5318	0.5579	0.5850	0.6131	0.6423	0.6725	0.7040	0.7703	0.8416	0.9181	1.000	1.088	
6	0.3932	0.4172	0.4423	0.4687	0.4964	0.5255	0.5559	0.5878	0.6213	0.6562	0.7312	0.8131	0.9025	1.000	1.106	
7	0.3366	0.3606	0.3861	0.4131	0.4417	0.4720	0.5041	0.5380	0.5739	0.6118	0.6940	0.7855	0.8872	1.000	1.125	
8	0.2881	0.3117	0.3370	0.3641	0.3931	0.4240	0.4571	0.4924	0.5301	0.5703	0.6587	0.7589	0.8722	1.000	1.144	
9	0.2466	0.2694	0.2942	0.3209	0.3498	0.3809	0.4145	0.4507	0.4897	0.5316	0.6252	0.7332	0.8574	1.000	1.163	
10	0.2111	0.2329	0.2568	0.2828	0.3112	0.3422	0.3759	0.4125	0.4523	0.4956	0.5934	0.7083	0.8429	1.000	1.183	
11	0.1806	0.2013	0.2241	0.2493	0.2769	0.3074	0.3408	0.3775	0.4178	0.4620	0.5632	0.6843	0.8286	1.000	1.203	
12	0.1546	0.1740	0.1956	0.2197	0.2464	0.2761	0.3090	0.3455	0.3860	0.4307	0.5346	0.6611	0.8145	1.000	1.223	
13	0.1323	0.1504	0.1708	0.1936	0.2193	0.2480	0.2802	0.3163	0.3565	0.4015	0.5074	0.6387	0.8007	1.000	1.244	
14	0.1133	0.1300	0.1491	0.1707	0.1951	0.2228	0.2541	0.2895	0.3293	0.3742	0.4816	0.6170	0.7872	1.000	1.265	
15	0.0970	0.1124	0.1301	0.1504	0.1736	0.2002	0.2304	0.2649	0.3042	0.3489	0.4571	0.5961	0.7738	1.000	1.287	
16	0.0830	0.0972	0.1136	0.1326	0.1546	0.1798	0.2089	0.2425	0.2810	0.3252	0.4339	0.5759	0.7607	1.000	1.309	
17	0.0710	0.0840	0.0991	0.1168	0.1375	0.1615	0.1895	0.2219	0.2596	0.3032	0.4118	0.5564	0.7478	1.000	1.331	
18	0.0608	0.0726	0.0865	0.1030	0.1223	0.1451	0.1718	0.2031	0.2398	0.2826	0.3909	0.5375	0.7351	1.000	1.353	
19	0.0520	0.0628	0.0755	0.0908	0.1089	0.1303	0.1558	0.1859	0.2215	0.2635	0.3710	0.5193	0.7227	1.000	1.376	
20	0.0445	0.0542	0.0659	0.0800	0.0969	0.1171	0.1413	0.1702	0.2046	0.2456	0.3521	0.5017	0.7104	1.000	1.400	
21	0.0381	0.0469	0.0576	0.0705	0.0862	0.1052	0.1281	0.1557	0.1890	0.2289	0.3342	0.4847	0.6984	1.000	1.423	
22	0.0326	0.0405	0.0502	0.0621	0.0767	0.0945	0.1162	0.1425	0.1746	0.2134	0.3172	0.4683	0.6865	1.000	1.447	
23	0.0279	0.0350	0.0438	0.0548	0.0682	0.0849	0.1053	0.1305	0.1613	0.1990	0.3011	0.4524	0.6749	1.000	1.472	
24	0.0239	0.0303	0.0383	0.0483	0.0607	0.0762	0.0955	0.1194	0.1490	0.1855	0.2858	0.4371	0.6635	1.000	1.497	
25	0.0205	0.0262	0.0334	0.0425	0.0540	0.0685	0.0866	0.1093	0.1376	0.1729	0.2713	0.4223	0.6522	1.000	1.522	
26	0.0175	0.0226	0.0292	0.0375	0.0481	0.0615	0.0785	0.1000	0.1271	0.1612	0.2575	0.4079	0.6412	1.000	1.548	
27	0.0150	0.0196	0.0255	0.0330	0.0428	0.0553	0.0712	0.0915	0.1174	0.1502	0.2444	0.3941	0.6303	1.000	1.574	
28	0.0128	0.0169	0.0222	0.0291	0.0381	0.0496	0.0646	0.0838	0.1085	0.1401	0.2320	0.3807	0.6196	1.000	1.601	
29	0.0110	0.0146	0.0194	0.0257	0.0339	0.0446	0.0586	0.0767	0.1002	0.1306	0.2202	0.3678	0.6091	1.000	1.628	
30	0.0094	0.0126	0.0169	0.0226	0.0301	0.0401	0.0531	0.0702	0.0925	0.1217	0.2090	0.3554	0.5988	1.000	1.656	
31	0.0080	0.0109	0.0148	0.0199	0.0268	0.0360	0.0481	0.0642	0.0855	0.1135	0.1983	0.3433	0.5886	1.000	1.684	
32	0.0069	0.0094	0.0129	0.0176	0.0239	0.0323	0.0437	0.0588	0.0790	0.1058	0.1883	0.3317	0.5787	1.000	1.712	
33	0.0059	0.0082	0.0113	0.0155	0.0212	0.0290	0.0396	0.0538	0.0729	0.0986	0.1787	0.3204	0.5689	1.000	1.741	
34	0.0050	0.0071	0.0098	0.0137	0.0189	0.0261	0.0359	0.0493	0.0674	0.0919	0.1696	0.3096	0.5592	1.000	1.771	
35	0.0043	0.0061	0.0086	0.0120	0.0168	0.0234	0.0326	0.0451	0.0622	0.0857	0.1610	0.2991	0.5497	1.000	1.801	
36	0.0037	0.0053	0.0075	0.0106	0.0150	0.0211	0.0295	0.0413	0.0575	0.0799	0.1528	0.2889	0.5404	1.000	1.831	
37	0.0032	0.0046	0.0065	0.0093	0.0133	0.0189	0.0268	0.0378	0.0531	0.0745	0.1450	0.2792	0.5313	1.000	1.862	
38	0.0027	0.0039	0.0057	0.0082	0.0118	0.0170	0.0243	0.0346	0.0491	0.0694	0.1376	0.2697	0.5223	1.000	1.894	
39	0.0023	0.0034	0.0050	0.0073	0.0105	0.0153	0.0220	0.0316	0.0453	0.0647	0.1306	0.2605	0.5134	1.000	1.926	
40	0.0020	0.0029	0.0043	0.0064	0.0094	0.0137	0.0200	0.0290	0.0419	0.0603	0.1240	0.2517	0.5047	1.000	1.959	

^a See page vi for an explanation of the proper use of this table.

Table S-19
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 19%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8487	0.8571	0.8655	0.8739	0.8824	0.8908	0.8992	0.9076	0.9160	0.9244	0.9412	0.9580	0.9748	0.9916	1.008					
2	0.7204	0.7347	0.7492	0.7638	0.7785	0.7934	0.8085	0.8237	0.8390	0.8545	0.8858	0.9177	0.9502	0.9833	1.017					
3	0.6114	0.6297	0.6484	0.6675	0.6870	0.7068	0.7270	0.7475	0.7685	0.7898	0.8337	0.8792	0.9263	0.9750	1.025					
4	0.5189	0.5398	0.5613	0.5834	0.6061	0.6296	0.6537	0.6784	0.7039	0.7301	0.7847	0.8422	0.9029	0.9668	1.034					
5	0.4404	0.4627	0.4858	0.5098	0.5348	0.5608	0.5877	0.6157	0.6448	0.6749	0.7385	0.8068	0.8801	0.9587	1.043					
6	0.3738	0.3966	0.4205	0.4456	0.4719	0.4995	0.5285	0.5588	0.5906	0.6238	0.6951	0.7729	0.8580	0.9506	1.051					
7	0.3173	0.3399	0.3639	0.3894	0.4164	0.4450	0.4752	0.5072	0.5409	0.5767	0.6542	0.7405	0.8363	0.9426	1.060					
8	0.2693	0.2914	0.3150	0.3403	0.3674	0.3963	0.4273	0.4603	0.4955	0.5330	0.6157	0.7094	0.8152	0.9347	1.069					
9	0.2285	0.2497	0.2727	0.2974	0.3242	0.3530	0.3842	0.4177	0.4539	0.4927	0.5795	0.6795	0.7947	0.9269	1.078					
10	0.1940	0.2141	0.2360	0.2599	0.2860	0.3145	0.3454	0.3791	0.4157	0.4555	0.5428	0.6510	0.7747	0.9191	1.087					
11	0.1646	0.1835	0.2043	0.2272	0.2524	0.2801	0.3106	0.3441	0.3808	0.4210	0.5133	0.6236	0.7551	0.9114	1.096					
12	0.1397	0.1573	0.1768	0.1985	0.2227	0.2495	0.2793	0.3123	0.3488	0.3892	0.4831	0.5974	0.7361	0.9037	1.106					
13	0.1186	0.1348	0.1530	0.1735	0.1965	0.2223	0.2511	0.2834	0.3195	0.3597	0.4547	0.5723	0.7175	0.8961	1.115					
14	0.1007	0.1155	0.1325	0.1516	0.1734	0.1980	0.2258	0.2572	0.2926	0.3325	0.4280	0.5483	0.6994	0.8886	1.124					
15	0.0854	0.0990	0.1146	0.1325	0.1530	0.1764	0.2030	0.2334	0.2680	0.3074	0.4028	0.5253	0.6818	0.8811	1.134					
16	0.0725	0.0849	0.0992	0.1158	0.1350	0.1571	0.1826	0.2119	0.2455	0.2841	0.3791	0.5032	0.6646	0.8737	1.143					
17	0.0615	0.0728	0.0859	0.1012	0.1191	0.1399	0.1641	0.1923	0.2249	0.2626	0.3568	0.4820	0.6479	0.8664	1.153					
18	0.0522	0.0624	0.0743	0.0885	0.1051	0.1246	0.1476	0.1745	0.2060	0.2428	0.3358	0.4618	0.6315	0.8591	1.163					
19	0.0443	0.0535	0.0643	0.0773	0.0927	0.1110	0.1327	0.1584	0.1887	0.2244	0.3160	0.4424	0.6156	0.8519	1.172					
20	0.0376	0.0458	0.0557	0.0676	0.0818	0.0989	0.1193	0.1437	0.1728	0.2075	0.2975	0.4238	0.6001	0.8447	1.182					
21	0.0319	0.0393	0.0482	0.0590	0.0722	0.0881	0.1073	0.1304	0.1583	0.1918	0.2800	0.4060	0.5850	0.8376	1.192					
22	0.0271	0.0337	0.0417	0.0516	0.0637	0.0785	0.0965	0.1184	0.1450	0.1773	0.2635	0.3889	0.5702	0.8306	1.202					
23	0.0230	0.0289	0.0361	0.0451	0.0562	0.0699	0.0867	0.1074	0.1328	0.1639	0.2480	0.3726	0.5558	0.8236	1.212					
24	0.0195	0.0247	0.0313	0.0394	0.0496	0.0623	0.0780	0.0975	0.1216	0.1515	0.2334	0.3569	0.5418	0.8167	1.222					
25	0.0166	0.0212	0.0271	0.0344	0.0438	0.0555	0.0701	0.0885	0.1114	0.1400	0.2197	0.3419	0.5282	0.8098	1.233					
26	0.0141	0.0182	0.0234	0.0301	0.0386	0.0494	0.0631	0.0803	0.1021	0.1294	0.2068	0.3276	0.5149	0.8030	1.243					
27	0.0119	0.0156	0.0203	0.0263	0.0341	0.0440	0.0567	0.0729	0.0935	0.1196	0.1946	0.3138	0.5019	0.7962	1.254					
28	0.0101	0.0134	0.0175	0.0230	0.0301	0.0392	0.0510	0.0662	0.0856	0.1106	0.1831	0.3006	0.4892	0.7896	1.264					
29	0.0086	0.0114	0.0152	0.0201	0.0265	0.0349	0.0458	0.0600	0.0784	0.1022	0.1724	0.2880	0.4769	0.7829	1.275					
30	0.0073	0.0098	0.0131	0.0176	0.0234	0.0311	0.0412	0.0545	0.0718	0.0945	0.1622	0.2759	0.4649	0.7763	1.285					
31	0.0062	0.0084	0.0114	0.0153	0.0206	0.0277	0.0371	0.0495	0.0658	0.0873	0.1527	0.2643	0.4531	0.7698	1.296					
32	0.0053	0.0072	0.0098	0.0134	0.0182	0.0247	0.0333	0.0449	0.0603	0.0807	0.1437	0.2532	0.4417	0.7633	1.307					
33	0.0045	0.0062	0.0085	0.0117	0.0161	0.0220	0.0300	0.0407	0.0552	0.0746	0.1353	0.2426	0.4306	0.7569	1.318					
34	0.0038	0.0053	0.0074	0.0102	0.0142	0.0196	0.0269	0.0370	0.0506	0.0690	0.1273	0.2324	0.4197	0.7506	1.329					
35	0.0032	0.0045	0.0064	0.0090	0.0125	0.0174	0.0242	0.0335	0.0463	0.0638	0.1198	0.2226	0.4092	0.7443	1.340					
36	0.0027	0.0039	0.0055	0.0078	0.0110	0.0155	0.0218	0.0304	0.0424	0.0589	0.1128	0.2132	0.3988	0.7380	1.352					
37	0.0023	0.0033	0.0048	0.0068	0.0097	0.0138	0.0196	0.0276	0.0389	0.0545	0.1061	0.2043	0.3888	0.7318	1.363					
38	0.0020	0.0029	0.0041	0.0060	0.0086	0.0123	0.0176	0.0251	0.0356	0.0504	0.0999	0.1957	0.3790	0.7257	1.374					
39	0.0017	0.0024	0.0036	0.0052	0.0076	0.0110	0.0158	0.0228	0.0326	0.0466	0.0940	0.1875	0.3694	0.7196	1.386					
40	0.0014	0.0021	0.0031	0.0046	0.0067	0.0098	0.0142	0.0207	0.0299	0.0430	0.0885	0.1796	0.3601	0.7135	1.398					

^a See page vi for an explanation of the proper use of this table.

Table S-20
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 20%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8417	0.8500	0.8583	0.8667	0.8750	0.8833	0.8917	0.9000	0.9083	0.9167	0.9333	0.9500	0.9667	0.9833	1.000					
2	0.7084	0.7225	0.7367	0.7511	0.7656	0.7803	0.7951	0.8100	0.8251	0.8403	0.8711	0.9025	0.9344	0.9669	1.000					
3	0.5962	0.6141	0.6324	0.6510	0.6699	0.6892	0.7089	0.7290	0.7494	0.7703	0.8130	0.8574	0.9033	0.9508	1.000					
4	0.5018	0.5220	0.5428	0.5642	0.5862	0.6088	0.6321	0.6561	0.6807	0.7061	0.7588	0.8145	0.8732	0.9350	1.000					
5	0.4224	0.4437	0.4659	0.4889	0.5129	0.5378	0.5637	0.5905	0.6183	0.6472	0.7082	0.7738	0.8441	0.9194	1.000					
6	0.3555	0.3771	0.3999	0.4238	0.4488	0.4751	0.5026	0.5314	0.5617	0.5933	0.6610	0.7351	0.8159	0.9041	1.000					
7	0.2992	0.3206	0.3432	0.3673	0.3927	0.4196	0.4481	0.4783	0.5102	0.5439	0.6170	0.6983	0.7887	0.8890	1.000					
8	0.2518	0.2725	0.2946	0.3183	0.3436	0.3707	0.3996	0.4305	0.4634	0.4985	0.5758	0.6634	0.7625	0.8742	1.000					
9	0.2120	0.2316	0.2529	0.2758	0.3007	0.3274	0.3563	0.3874	0.4209	0.4570	0.5374	0.6302	0.7370	0.8596	1.000					
10	0.1784	0.1969	0.2170	0.2391	0.2631	0.2892	0.3177	0.3487	0.3823	0.4189	0.5016	0.5987	0.7125	0.8453	1.000					
11	0.1502	0.1673	0.1863	0.2072	0.2302	0.2555	0.2833	0.3138	0.3473	0.3840	0.4682	0.5688	0.6887	0.8312	1.000					
12	0.1264	0.1422	0.1599	0.1796	0.2014	0.2257	0.2526	0.2824	0.3155	0.3520	0.4370	0.5404	0.6658	0.8174	1.000					
13	0.1064	0.1209	0.1373	0.1556	0.1762	0.1994	0.2252	0.2542	0.2865	0.3227	0.4078	0.5133	0.6436	0.8037	1.000					
14	0.0895	0.1028	0.1178	0.1349	0.1542	0.1761	0.2008	0.2288	0.2603	0.2958	0.3806	0.4877	0.6221	0.7903	1.000					
15	0.0754	0.0874	0.1011	0.1169	0.1349	0.1555	0.1791	0.2059	0.2364	0.2711	0.3553	0.4633	0.6014	0.7772	1.000					
16	0.0634	0.0743	0.0868	0.1013	0.1181	0.1374	0.1597	0.1853	0.2147	0.2485	0.3316	0.4401	0.5813	0.7642	1.000					
17	0.0534	0.0631	0.0745	0.0878	0.1033	0.1214	0.1424	0.1668	0.1951	0.2278	0.3095	0.4181	0.5620	0.7515	1.000					
18	0.0449	0.0536	0.0639	0.0761	0.0904	0.1072	0.1270	0.1501	0.1772	0.2088	0.2888	0.3974	0.5432	0.7389	1.000					
19	0.0378	0.0456	0.0549	0.0659	0.0791	0.0947	0.1132	0.1351	0.1609	0.1914	0.2696	0.3772	0.5251	0.7266	1.000					
20	0.0318	0.0388	0.0471	0.0572	0.0692	0.0837	0.1009	0.1216	0.1462	0.1755	0.2516	0.3585	0.5076	0.7145	1.000					
21	0.0268	0.0328	0.0404	0.0495	0.0606	0.0739	0.0900	0.1094	0.1328	0.1609	0.2348	0.3406	0.4907	0.7026	1.000					
22	0.0225	0.0280	0.0347	0.0429	0.0530	0.0653	0.0803	0.0985	0.1206	0.1475	0.2192	0.3235	0.4743	0.6909	1.000					
23	0.0190	0.0238	0.0298	0.0372	0.0464	0.0577	0.0716	0.0886	0.1096	0.1352	0.2046	0.3074	0.4585	0.6794	1.000					
24	0.0160	0.0202	0.0256	0.0322	0.0406	0.0509	0.0638	0.0798	0.0995	0.1239	0.1909	0.2920	0.4432	0.6681	1.000					
25	0.0134	0.0172	0.0219	0.0279	0.0355	0.0450	0.0569	0.0718	0.0904	0.1136	0.1782	0.2774	0.4285	0.6569	1.000					
26	0.0113	0.0146	0.0188	0.0242	0.0311	0.0397	0.0507	0.0646	0.0821	0.1041	0.1663	0.2635	0.4142	0.6460	1.000					
27	0.0095	0.0124	0.0162	0.0210	0.0272	0.0351	0.0452	0.0581	0.0746	0.0954	0.1552	0.2503	0.4004	0.6352	1.000					
28	0.0080	0.0106	0.0139	0.0182	0.0238	0.0310	0.0403	0.0523	0.0677	0.0875	0.1449	0.2378	0.3870	0.6246	1.000					
29	0.0067	0.0090	0.0119	0.0158	0.0208	0.0274	0.0360	0.0471	0.0615	0.0802	0.1352	0.2259	0.3741	0.6142	1.000					
30	0.0057	0.0076	0.0102	0.0137	0.0182	0.0242	0.0321	0.0424	0.0559	0.0735	0.1262	0.2146	0.3617	0.6040	1.000					
31	0.0048	0.0065	0.0088	0.0118	0.0159	0.0214	0.0286	0.0382	0.0508	0.0674	0.1178	0.2039	0.3496	0.5939	1.000					
32	0.0040	0.0055	0.0075	0.0103	0.0139	0.0189	0.0255	0.0343	0.0461	0.0618	0.1099	0.1937	0.3380	0.5840	1.000					
33	0.0034	0.0047	0.0065	0.0089	0.0122	0.0167	0.0227	0.0309	0.0419	0.0566	0.1026	0.1840	0.3267	0.5743	1.000					
34	0.0028	0.0040	0.0056	0.0077	0.0107	0.0147	0.0203	0.0278	0.0380	0.0519	0.0958	0.1748	0.3158	0.5647	1.000					
35	0.0024	0.0034	0.0048	0.0067	0.0093	0.0130	0.0181	0.0250	0.0346	0.0476	0.0894	0.1661	0.3053	0.5553	1.000					
36	0.0020	0.0029	0.0041	0.0058	0.0082	0.0115	0.0161	0.0225	0.0314	0.0436	0.0834	0.1578	0.2951	0.5460	1.000					
37	0.0017	0.0024	0.0035	0.0050	0.0071	0.0102	0.0144	0.0203	0.0285	0.0400	0.0779	0.1499	0.2853	0.5369	1.000					
38	0.0014	0.0021	0.0030	0.0043	0.0063	0.0090	0.0128	0.0182	0.0259	0.0366	0.0727	0.1424	0.2757	0.5280	1.000					
39	0.0012	0.0018	0.0026	0.0038	0.0055	0.0079	0.0114	0.0164	0.0235	0.0336	0.0678	0.1353	0.2666	0.5192	1.000					
40	0.0010	0.0015	0.0022	0.0033	0.0048	0.0070	0.0102	0.0148	0.0214	0.0308	0.0633	0.1285	0.2577	0.5105	1.000					

^a See page vi for an explanation of the proper use of this table.

Table S-21
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 21%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8347	0.8430	0.8512	0.8595	0.8678	0.8760	0.8843	0.8926	0.9008	0.9091	0.9256	0.9421	0.9587	0.9752	0.9917					
2	0.6967	0.7106	0.7246	0.7387	0.7530	0.7674	0.7820	0.7967	0.8115	0.8264	0.8568	0.8876	0.9191	0.9510	0.9835					
3	0.5816	0.5990	0.6168	0.6350	0.6534	0.6723	0.6915	0.7111	0.7310	0.7513	0.7930	0.8363	0.8811	0.9274	0.9754					
4	0.4854	0.5050	0.5251	0.5457	0.5670	0.5890	0.6115	0.6347	0.6585	0.6830	0.7341	0.7879	0.8447	0.9045	0.9673					
5	0.4052	0.4257	0.4470	0.4691	0.4921	0.5159	0.5407	0.5665	0.5932	0.6209	0.6795	0.7423	0.8098	0.8820	0.9594					
6	0.3382	0.3588	0.3805	0.4032	0.4270	0.4520	0.4782	0.5056	0.5344	0.5645	0.6289	0.6994	0.7763	0.8602	0.9514					
7	0.2823	0.3025	0.3239	0.3465	0.3705	0.3960	0.4229	0.4513	0.4814	0.5132	0.5821	0.6589	0.7442	0.8388	0.9436					
8	0.2357	0.2550	0.2757	0.2978	0.3215	0.3469	0.3739	0.4028	0.4336	0.4665	0.5388	0.6208	0.7135	0.8180	0.9358					
9	0.1967	0.2149	0.2347	0.2560	0.2790	0.3039	0.3307	0.3595	0.3906	0.4241	0.4998	0.5849	0.6840	0.7978	0.9280					
10	0.1642	0.1812	0.1998	0.2200	0.2421	0.2662	0.2924	0.3209	0.3519	0.3855	0.4617	0.5511	0.6557	0.7780	0.9204					
11	0.1371	0.1527	0.1700	0.1891	0.2101	0.2332	0.2586	0.2864	0.3170	0.3505	0.4273	0.5192	0.6286	0.7587	0.9128					
12	0.1144	0.1288	0.1448	0.1625	0.1823	0.2043	0.2287	0.2557	0.2856	0.3186	0.3955	0.4891	0.6027	0.7399	0.9052					
13	0.0955	0.1085	0.1232	0.1397	0.1582	0.1790	0.2022	0.2282	0.2572	0.2897	0.3661	0.4608	0.5778	0.7215	0.8977					
14	0.0797	0.0915	0.1049	0.1201	0.1373	0.1568	0.1788	0.2037	0.2317	0.2633	0.3389	0.4342	0.5539	0.7036	0.8903					
15	0.0665	0.0771	0.0893	0.1032	0.1191	0.1373	0.1581	0.1818	0.2087	0.2394	0.3137	0.4091	0.5310	0.6862	0.8830					
16	0.0555	0.0650	0.0760	0.0887	0.1034	0.1203	0.1398	0.1623	0.1880	0.2176	0.2904	0.3854	0.5091	0.6692	0.8757					
17	0.0464	0.0548	0.0647	0.0762	0.0897	0.1054	0.1236	0.1448	0.1694	0.1978	0.2688	0.3631	0.4880	0.6526	0.8684					
18	0.0387	0.0462	0.0551	0.0655	0.0779	0.0923	0.1093	0.1293	0.1526	0.1799	0.2488	0.3421	0.4679	0.6364	0.8612					
19	0.0323	0.0389	0.0469	0.0563	0.0676	0.0809	0.0967	0.1154	0.1375	0.1635	0.2303	0.3223	0.4485	0.6206	0.8541					
20	0.0270	0.0328	0.0399	0.0484	0.0586	0.0709	0.0855	0.1030	0.1238	0.1486	0.2131	0.3037	0.4300	0.6052	0.8471					
21	0.0225	0.0277	0.0340	0.0416	0.0509	0.0621	0.0756	0.0919	0.1115	0.1351	0.1973	0.2861	0.4122	0.5902	0.8401					
22	0.0188	0.0233	0.0289	0.0358	0.0441	0.0544	0.0669	0.0820	0.1005	0.1228	0.1826	0.2695	0.3952	0.5756	0.8331					
23	0.0157	0.0197	0.0246	0.0307	0.0383	0.0476	0.0591	0.0732	0.0905	0.1117	0.1690	0.2539	0.3789	0.5613	0.8262					
24	0.0131	0.0166	0.0210	0.0264	0.0332	0.0417	0.0523	0.0654	0.0815	0.1015	0.1565	0.2393	0.3632	0.5474	0.8194					
25	0.0109	0.0140	0.0178	0.0227	0.0288	0.0366	0.0462	0.0583	0.0735	0.0923	0.1448	0.2254	0.3482	0.5338	0.8126					
26	0.0091	0.0118	0.0152	0.0195	0.0250	0.0320	0.0409	0.0521	0.0662	0.0839	0.1340	0.2124	0.3338	0.5206	0.8059					
27	0.0076	0.0099	0.0129	0.0168	0.0217	0.0281	0.0362	0.0465	0.0596	0.0763	0.1241	0.2001	0.3200	0.5077	0.7993					
28	0.0064	0.0084	0.0110	0.0144	0.0188	0.0246	0.0320	0.0415	0.0537	0.0693	0.1148	0.1885	0.3068	0.4951	0.7927					
29	0.0053	0.0071	0.0094	0.0124	0.0164	0.0215	0.0283	0.0370	0.0484	0.0630	0.1063	0.1776	0.2941	0.4828	0.7861					
30	0.0044	0.0059	0.0080	0.0107	0.0142	0.0189	0.0250	0.0330	0.0436	0.0573	0.0984	0.1673	0.2820	0.4709	0.7796					
31	0.0037	0.0050	0.0068	0.0092	0.0123	0.0165	0.0221	0.0295	0.0393	0.0521	0.0911	0.1577	0.2703	0.4592	0.7732					
32	0.0031	0.0042	0.0058	0.0079	0.0107	0.0145	0.0196	0.0263	0.0354	0.0474	0.0843	0.1485	0.2591	0.4478	0.7668					
33	0.0026	0.0036	0.0049	0.0068	0.0093	0.0127	0.0173	0.0235	0.0319	0.0431	0.0780	0.1399	0.2484	0.4367	0.7604					
34	0.0021	0.0030	0.0042	0.0058	0.0080	0.0111	0.0153	0.0210	0.0287	0.0391	0.0722	0.1318	0.2382	0.4259	0.7542					
35	0.0018	0.0025	0.0036	0.0050	0.0070	0.0097	0.0135	0.0187	0.0258	0.0356	0.0669	0.1242	0.2283	0.4153	0.7479					
36	0.0015	0.0021	0.0030	0.0043	0.0061	0.0085	0.0120	0.0167	0.0233	0.0323	0.0619	0.1170	0.2189	0.4050	0.7417					
37	0.0012	0.0018	0.0026	0.0037	0.0053	0.0075	0.0106	0.0149	0.0210	0.0294	0.0573	0.1103	0.2098	0.3950	0.7356					
38	0.0010	0.0015	0.0022	0.0032	0.0046	0.0065	0.0093	0.0133	0.0189	0.0267	0.0530	0.1039	0.2012	0.3852	0.7295					
39	0.0009	0.0013	0.0019	0.0027	0.0040	0.0057	0.0083	0.0119	0.0170	0.0243	0.0491	0.0979	0.1929	0.3756	0.7235					
40	0.0007	0.0011	0.0016	0.0023	0.0034	0.0050	0.0073	0.0106	0.0153	0.0221	0.0454	0.0922	0.1849	0.3663	0.7175					

^a See page vi for an explanation of the proper use of this table.

Table S-22
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 22%

Period	Rate of Price Increase per Period															
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%	
1	0.8279	0.8361	0.8443	0.8525	0.8607	0.8689	0.8770	0.8852	0.8934	0.9016	0.9180	0.9344	0.9508	0.9672	0.9836	
2	0.6854	0.6990	0.7128	0.7267	0.7407	0.7549	0.7692	0.7837	0.7982	0.8130	0.8428	0.8732	0.9041	0.9355	0.9675	
3	0.5674	0.5844	0.6018	0.6195	0.6375	0.6559	0.6746	0.6937	0.7132	0.7330	0.7737	0.8159	0.8596	0.9048	0.9516	
4	0.4697	0.4886	0.5081	0.5281	0.5487	0.5699	0.5917	0.6141	0.6372	0.6609	0.7103	0.7624	0.8173	0.8752	0.9360	
5	0.3889	0.4085	0.4289	0.4502	0.4722	0.4951	0.5189	0.5437	0.5693	0.5959	0.6521	0.7124	0.7771	0.8465	0.9207	
6	0.3219	0.3415	0.3621	0.3837	0.4064	0.4302	0.4551	0.4813	0.5086	0.5373	0.5986	0.6657	0.7389	0.8187	0.9056	
7	0.2655	0.2856	0.3057	0.3271	0.3498	0.3738	0.3992	0.4260	0.4544	0.4844	0.5496	0.6220	0.7026	0.7919	0.8907	
8	0.2206	0.2387	0.2581	0.2789	0.3010	0.3248	0.3501	0.3771	0.4060	0.4368	0.5045	0.5812	0.6680	0.7659	0.8761	
9	0.1827	0.1996	0.2179	0.2377	0.2591	0.2822	0.3071	0.3339	0.3627	0.3938	0.4632	0.5431	0.6352	0.7408	0.8618	
10	0.1512	0.1669	0.1840	0.2026	0.2230	0.2452	0.2693	0.2956	0.3241	0.3551	0.4252	0.5075	0.6039	0.7165	0.8476	
11	0.1252	0.1395	0.1553	0.1727	0.1919	0.2130	0.2362	0.2616	0.2896	0.3202	0.3903	0.4742	0.5742	0.6930	0.8337	
12	0.1036	0.1166	0.1311	0.1473	0.1652	0.1851	0.2072	0.2316	0.2587	0.2887	0.3583	0.4431	0.5460	0.6703	0.8201	
13	0.0858	0.0975	0.1107	0.1255	0.1422	0.1608	0.1817	0.2050	0.2311	0.2603	0.3290	0.4141	0.5191	0.6483	0.8066	
14	0.0710	0.0815	0.0935	0.1070	0.1224	0.1397	0.1593	0.1815	0.2065	0.2347	0.3020	0.3869	0.4936	0.6271	0.7934	
15	0.0588	0.0682	0.0789	0.0912	0.1053	0.1214	0.1398	0.1607	0.1845	0.2116	0.2773	0.3616	0.4693	0.6065	0.7804	
16	0.0487	0.0570	0.0666	0.0778	0.0906	0.1055	0.1226	0.1422	0.1648	0.1908	0.2545	0.3378	0.4462	0.5866	0.7676	
17	0.0403	0.0477	0.0562	0.0663	0.0780	0.0916	0.1075	0.1259	0.1473	0.1720	0.2337	0.3157	0.4243	0.5674	0.7550	
18	0.0334	0.0398	0.0475	0.0565	0.0671	0.0796	0.0943	0.1115	0.1316	0.1551	0.2145	0.2950	0.4034	0.5488	0.7427	
19	0.0276	0.0333	0.0401	0.0482	0.0578	0.0692	0.0827	0.0987	0.1176	0.1398	0.1969	0.2756	0.3836	0.5308	0.7305	
20	0.0229	0.0278	0.0338	0.0411	0.0497	0.0601	0.0725	0.0874	0.1050	0.1261	0.1808	0.2576	0.3647	0.5134	0.7185	
21	0.0189	0.0233	0.0286	0.0350	0.0428	0.0522	0.0636	0.0773	0.0938	0.1137	0.1660	0.2407	0.3468	0.4966	0.7067	
22	0.0157	0.0195	0.0241	0.0298	0.0368	0.0454	0.0558	0.0685	0.0838	0.1025	0.1524	0.2249	0.3297	0.4803	0.6951	
23	0.0130	0.0163	0.0204	0.0254	0.0317	0.0394	0.0489	0.0606	0.0749	0.0924	0.1399	0.2102	0.3135	0.4645	0.6837	
24	0.0107	0.0136	0.0172	0.0217	0.0273	0.0343	0.0429	0.0536	0.0669	0.0833	0.1284	0.1964	0.2981	0.4493	0.6725	
25	0.0089	0.0114	0.0145	0.0185	0.0235	0.0298	0.0376	0.0475	0.0598	0.0751	0.1179	0.1835	0.2834	0.4346	0.6615	
26	0.0074	0.0095	0.0123	0.0158	0.0202	0.0259	0.0330	0.0420	0.0534	0.0677	0.1082	0.1715	0.2695	0.4203	0.6507	
27	0.0061	0.0080	0.0103	0.0134	0.0174	0.0225	0.0289	0.0372	0.0477	0.0611	0.0994	0.1602	0.2562	0.4065	0.6400	
28	0.0050	0.0066	0.0087	0.0115	0.0150	0.0195	0.0254	0.0329	0.0426	0.0551	0.0912	0.1497	0.2436	0.3932	0.6295	
29	0.0042	0.0056	0.0074	0.0098	0.0129	0.0170	0.0223	0.0292	0.0381	0.0497	0.0837	0.1399	0.2317	0.3803	0.6192	
30	0.0035	0.0046	0.0062	0.0083	0.0111	0.0147	0.0195	0.0258	0.0340	0.0448	0.0769	0.1307	0.2203	0.3678	0.6090	
31	0.0029	0.0039	0.0053	0.0071	0.0095	0.0128	0.0171	0.0229	0.0304	0.0404	0.0706	0.1222	0.2094	0.3558	0.5991	
32	0.0024	0.0032	0.0044	0.0060	0.0082	0.0111	0.0150	0.0202	0.0272	0.0364	0.0648	0.1141	0.1991	0.3441	0.5892	
33	0.0020	0.0027	0.0037	0.0052	0.0071	0.0097	0.0132	0.0179	0.0243	0.0328	0.0595	0.1067	0.1893	0.3328	0.5796	
34	0.0016	0.0023	0.0032	0.0044	0.0061	0.0084	0.0116	0.0159	0.0217	0.0296	0.0540	0.0997	0.1800	0.3219	0.5701	
35	0.0013	0.0019	0.0027	0.0037	0.0052	0.0073	0.0101	0.0140	0.0194	0.0267	0.0501	0.0931	0.1712	0.3114	0.5607	
36	0.0011	0.0016	0.0023	0.0032	0.0045	0.0063	0.0089	0.0124	0.0173	0.0241	0.0460	0.0870	0.1628	0.3012	0.5515	
37	0.0009	0.0013	0.0019	0.0027	0.0039	0.0055	0.0078	0.0110	0.0155	0.0217	0.0422	0.0813	0.1548	0.2913	0.5425	
38	0.0008	0.0011	0.0016	0.0023	0.0033	0.0048	0.0068	0.0097	0.0138	0.0196	0.0388	0.0760	0.1471	0.2817	0.5336	
39	0.0006	0.0009	0.0014	0.0020	0.0029	0.0042	0.0060	0.0086	0.0123	0.0176	0.0356	0.0710	0.1399	0.2725	0.5249	
40	0.0005	0.0008	0.0011	0.0017	0.0025	0.0036	0.0053	0.0076	0.0110	0.0159	0.0327	0.0663	0.1330	0.2636	0.5162	

^a See page vi for an explanation of the proper use of this table.

Table S-23
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 23%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8211	0.8293	0.8374	0.8455	0.8537	0.8618	0.8699	0.8780	0.8862	0.8943	0.9106	0.9268	0.9431	0.9593	0.9756					
2	0.6743	0.6877	0.7012	0.7149	0.7287	0.7427	0.7568	0.7710	0.7853	0.7998	0.8291	0.8590	0.8894	0.9204	0.9518					
3	0.5537	0.5703	0.5872	0.6045	0.6221	0.6400	0.6583	0.6769	0.6959	0.7153	0.7550	0.7962	0.8388	0.8829	0.9286					
4	0.4546	0.4729	0.4917	0.5111	0.5311	0.5516	0.5727	0.5944	0.6167	0.6397	0.6875	0.7379	0.7911	0.8470	0.9060					
5	0.3733	0.3922	0.4118	0.4322	0.4533	0.4753	0.4982	0.5219	0.5465	0.5721	0.6260	0.6839	0.7460	0.8126	0.8839					
6	0.3065	0.3252	0.3448	0.3654	0.3870	0.4096	0.4334	0.4583	0.4843	0.5116	0.5700	0.6339	0.7036	0.7796	0.8623					
7	0.2517	0.2697	0.2888	0.3090	0.3304	0.3530	0.3770	0.4024	0.4292	0.4575	0.5190	0.5875	0.6635	0.7479	0.8413					
8	0.2067	0.2236	0.2418	0.2612	0.2820	0.3042	0.3280	0.3533	0.3803	0.4092	0.4726	0.5445	0.6258	0.7175	0.8207					
9	0.1697	0.1855	0.2025	0.2209	0.2407	0.2622	0.2853	0.3102	0.3370	0.3659	0.4303	0.5047	0.5902	0.6883	0.8007					
10	0.1394	0.1538	0.1696	0.1868	0.2055	0.2259	0.2482	0.2724	0.2987	0.3272	0.3919	0.4677	0.5566	0.6603	0.7812					
11	0.1144	0.1275	0.1420	0.1579	0.1754	0.1947	0.2159	0.2392	0.2647	0.2927	0.3568	0.4335	0.5249	0.6335	0.7621					
12	0.0940	0.1058	0.1189	0.1335	0.1498	0.1678	0.1878	0.2100	0.2346	0.2617	0.3249	0.4018	0.4950	0.6077	0.7436					
13	0.0772	0.0877	0.0996	0.1129	0.1278	0.1446	0.1634	0.1844	0.2079	0.2341	0.2958	0.3724	0.4669	0.5830	0.7254					
14	0.0634	0.0727	0.0834	0.0955	0.1091	0.1246	0.1421	0.1619	0.1842	0.2093	0.2694	0.3451	0.4403	0.5593	0.7077					
15	0.0520	0.0603	0.0698	0.0807	0.0932	0.1074	0.1236	0.1422	0.1632	0.1872	0.2453	0.3199	0.4152	0.5366	0.6905					
16	0.0427	0.0500	0.0585	0.0682	0.0795	0.0926	0.1076	0.1248	0.1447	0.1674	0.2234	0.2965	0.3916	0.5148	0.6736					
17	0.0351	0.0415	0.0490	0.0577	0.0679	0.0798	0.0936	0.1096	0.1282	0.1497	0.2034	0.2748	0.3693	0.4939	0.6572					
18	0.0288	0.0344	0.0410	0.0488	0.0580	0.0687	0.0814	0.0962	0.1136	0.1339	0.1852	0.2547	0.3483	0.4738	0.6412					
19	0.0237	0.0285	0.0343	0.0413	0.0495	0.0592	0.0708	0.0845	0.1007	0.1197	0.1666	0.2360	0.3285	0.4545	0.6255					
20	0.0194	0.0237	0.0288	0.0349	0.0422	0.0511	0.0616	0.0742	0.0892	0.1071	0.1536	0.2188	0.3098	0.4361	0.6103					
21	0.0159	0.0196	0.0241	0.0295	0.0361	0.0440	0.0536	0.0651	0.0791	0.0958	0.1398	0.2028	0.2922	0.4183	0.5954					
22	0.0131	0.0163	0.0202	0.0249	0.0308	0.0379	0.0466	0.0572	0.0701	0.0856	0.1273	0.1879	0.2755	0.4013	0.5809					
23	0.0108	0.0135	0.0169	0.0211	0.0263	0.0327	0.0406	0.0502	0.0621	0.0766	0.1159	0.1742	0.2598	0.3850	0.5629					
24	0.0088	0.0112	0.0141	0.0178	0.0224	0.0282	0.0353	0.0441	0.0550	0.0685	0.1056	0.1614	0.2451	0.3694	0.5529					
25	0.0073	0.0093	0.0118	0.0151	0.0191	0.0243	0.0307	0.0387	0.4888	0.0613	0.0961	0.1496	0.2311	0.3543	0.5394					
26	0.0060	0.0077	0.0099	0.0127	0.0163	0.0209	0.0267	0.0340	0.0432	0.0548	0.0875	0.1387	0.2180	0.3399	0.5262					
27	0.0049	0.0064	0.0083	0.0108	0.0140	0.0180	0.0232	0.0299	0.0383	0.0490	0.0797	0.1285	0.2056	0.3261	0.5134					
28	0.0040	0.0053	0.0070	0.0091	0.0119	0.0155	0.0202	0.0262	0.0339	0.0438	0.0726	0.1191	0.1939	0.3129	0.5009					
29	0.0033	0.0044	0.0058	0.0077	0.0102	0.0134	0.0176	0.0230	0.0301	0.0392	0.0661	0.1104	0.1828	0.3001	0.4887					
30	0.0027	0.0036	0.0049	0.0065	0.0087	0.0115	0.0153	0.0202	0.0266	0.0350	0.0602	0.1023	0.1724	0.2879	0.4767					
31	0.0022	0.0030	0.0041	0.0055	0.0074	0.0099	0.0133	0.0177	0.0236	0.0313	0.0548	0.0948	0.1626	0.2762	0.4651					
32	0.0018	0.0025	0.0034	0.0047	0.0063	0.0086	0.0116	0.0156	0.0209	0.0280	0.0499	0.0879	0.1534	0.2542	0.4538					
33	0.0015	0.0021	0.0029	0.0039	0.0054	0.0074	0.0101	0.0137	0.0185	0.0251	0.0454	0.0815	0.1466	0.2439	0.4427					
34	0.0012	0.0017	0.0024	0.0033	0.0046	0.0064	0.0088	0.0120	0.0164	0.0224	0.0414	0.0755	0.1364	0.2439	0.4319					
35	0.0010	0.0014	0.0020	0.0028	0.0039	0.0055	0.0076	0.0105	0.0146	0.0200	0.0377	0.0700	0.1286	0.2340	0.4214					
36	0.0008	0.0012	0.0017	0.0024	0.0034	0.0047	0.0066	0.0093	0.0129	0.0179	0.0343	0.0649	0.1213	0.2245	0.4111					
37	0.0007	0.0010	0.0014	0.0020	0.0029	0.0041	0.0058	0.0081	0.0114	0.0160	0.0312	0.0601	0.1144	0.2154	0.4011					
38	0.0006	0.0008	0.0012	0.0017	0.0024	0.0035	0.0050	0.0071	0.0101	0.0143	0.0284	0.0557	0.1079	0.2066	0.3913					
39	0.0005	0.0007	0.0010	0.0014	0.0021	0.0030	0.0044	0.0063	0.0090	0.0128	0.0259	0.0516	0.1018	0.1982	0.3817					
40	0.0004	0.0006	0.0008	0.0012	0.0018	0.0026	0.0038	0.0055	0.0080	0.0115	0.0236	0.0479	0.0960	0.1901	0.3724					

^a See page vi for an explanation of the proper use of this table.

Table S-24
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 24%

Period	Rate of Price Increase per Period														
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%
1	0.8145	0.8226	0.8306	0.8387	0.8468	0.8548	0.8629	0.8710	0.8790	0.8871	0.9032	0.9194	0.9355	0.9516	0.9677
2	0.6634	0.6766	0.6900	0.7034	0.7170	0.7307	0.7446	0.7586	0.7727	0.7869	0.8158	0.8452	0.8751	0.9056	0.9365
3	0.5404	0.5566	0.5731	0.5900	0.6072	0.6247	0.6425	0.6607	0.6792	0.6981	0.7369	0.7771	0.8187	0.8617	0.9063
4	0.4401	0.4578	0.4761	0.4948	0.5141	0.5340	0.5544	0.5755	0.5971	0.6193	0.6656	0.7144	0.7659	0.8201	0.8771
5	0.3585	0.3766	0.3954	0.4150	0.4353	0.4565	0.4784	0.5012	0.5248	0.5493	0.6011	0.6568	0.7164	0.7804	0.8488
6	0.2920	0.3098	0.3285	0.3481	0.3686	0.3902	0.4128	0.4365	0.4613	0.4873	0.5430	0.6038	0.6702	0.7426	0.8214
7	0.2378	0.2548	0.2728	0.2919	0.3122	0.3336	0.3562	0.3802	0.4055	0.4323	0.4904	0.5551	0.6270	0.7067	0.7949
8	0.1937	0.2096	0.2266	0.2448	0.2643	0.2851	0.3074	0.3311	0.3565	0.3835	0.4430	0.5103	0.5865	0.6725	0.7693
9	0.1578	0.1724	0.1883	0.2054	0.2238	0.2438	0.2653	0.2884	0.3134	0.3402	0.4001	0.4692	0.5487	0.6399	0.7445
10	0.1285	0.1418	0.1564	0.1722	0.1895	0.2084	0.2289	0.2512	0.2755	0.3018	0.3614	0.4314	0.5133	0.6090	0.7204
11	0.1047	0.1167	0.1299	0.1445	0.1605	0.1781	0.1975	0.2188	0.2421	0.2677	0.3264	0.3966	0.4802	0.5795	0.6972
12	0.0853	0.0960	0.1079	0.1212	0.1359	0.1523	0.1704	0.1906	0.2128	0.2375	0.2948	0.3646	0.4492	0.5515	0.6747
13	0.0695	0.0789	0.0896	0.1016	0.1151	0.1302	0.1471	0.1660	0.1871	0.2107	0.2663	0.3352	0.4202	0.5248	0.6529
14	0.0566	0.0649	0.0744	0.0852	0.0974	0.1113	0.1269	0.1446	0.1645	0.1869	0.2405	0.3082	0.3931	0.4994	0.6319
15	0.0461	0.0534	0.0618	0.0715	0.0825	0.0951	0.1095	0.1259	0.1446	0.1658	0.2172	0.2833	0.3677	0.4752	0.6115
16	0.0375	0.0439	0.0514	0.0599	0.0699	0.0813	0.0945	0.1097	0.1271	0.1471	0.1962	0.2605	0.3440	0.4522	0.5918
17	0.0306	0.0361	0.0427	0.0503	0.0592	0.0695	0.0815	0.0955	0.1117	0.1305	0.1772	0.2394	0.3218	0.4304	0.5727
18	0.0249	0.0297	0.0354	0.0422	0.0501	0.0594	0.0704	0.0832	0.0982	0.1157	0.1601	0.2201	0.3011	0.4095	0.5542
19	0.0203	0.0245	0.0294	0.0354	0.0424	0.0508	0.0607	0.0725	0.0863	0.1027	0.1446	0.2024	0.2816	0.3897	0.5363
20	0.0165	0.0201	0.0245	0.0297	0.0359	0.0434	0.0524	0.0631	0.0759	0.0911	0.1306	0.1861	0.2635	0.3709	0.5190
21	0.0135	0.0165	0.0203	0.0249	0.0304	0.0371	0.0452	0.0550	0.0667	0.0808	0.1180	0.1711	0.2465	0.3529	0.5023
22	0.0110	0.0136	0.0169	0.0209	0.0258	0.0317	0.0390	0.0479	0.0586	0.0717	0.1065	0.1573	0.2306	0.3358	0.4861
23	0.0089	0.0112	0.0140	0.0175	0.0218	0.0271	0.0337	0.0417	0.0515	0.0636	0.0962	0.1446	0.2157	0.3196	0.4704
24	0.0073	0.0092	0.0116	0.0147	0.0185	0.0232	0.0290	0.0363	0.0453	0.0564	0.0869	0.1329	0.2018	0.3041	0.4552
25	0.0059	0.0076	0.0097	0.0123	0.0156	0.0198	0.0251	0.0316	0.0398	0.0500	0.0785	0.1222	0.1888	0.2894	0.4405
26	0.0048	0.0062	0.0080	0.0103	0.0132	0.0169	0.0216	0.0275	0.0350	0.0444	0.0709	0.1123	0.1766	0.2754	0.4253
27	0.0039	0.0051	0.0067	0.0087	0.0112	0.0145	0.0187	0.0240	0.0308	0.0394	0.0640	0.1033	0.1652	0.2621	0.4126
28	0.0032	0.0042	0.0055	0.0073	0.0095	0.0124	0.0161	0.0209	0.0270	0.0349	0.0578	0.0950	0.1545	0.2494	0.3993
29	0.0026	0.0035	0.0046	0.0061	0.0080	0.0106	0.0139	0.0182	0.0238	0.0310	0.0523	0.0873	0.1446	0.2373	0.3864
30	0.0021	0.0029	0.0038	0.0051	0.0068	0.0090	0.0120	0.0159	0.0209	0.0275	0.0472	0.0803	0.1352	0.2258	0.3739
31	0.0017	0.0023	0.0032	0.0043	0.0058	0.0077	0.0103	0.0138	0.0184	0.0244	0.0426	0.0738	0.1265	0.2149	0.3619
32	0.0014	0.0019	0.0026	0.0036	0.0049	0.0066	0.0089	0.0120	0.0161	0.0216	0.0385	0.0678	0.1183	0.2045	0.3502
33	0.0011	0.0016	0.0022	0.0030	0.0041	0.0057	0.0077	0.0105	0.0142	0.0192	0.0348	0.0624	0.1107	0.1946	0.3389
34	0.0009	0.0013	0.0018	0.0025	0.0035	0.0048	0.0066	0.0091	0.0125	0.0170	0.0314	0.0573	0.1036	0.1852	0.3280
35	0.0008	0.0011	0.0015	0.0021	0.0030	0.0041	0.0057	0.0079	0.0110	0.0151	0.0284	0.0527	0.0969	0.1762	0.3174
36	0.0006	0.0009	0.0013	0.0018	0.0025	0.0035	0.0050	0.0069	0.0096	0.0134	0.0256	0.0485	0.0906	0.1677	0.3071
37	0.0005	0.0007	0.0010	0.0015	0.0021	0.0030	0.0043	0.0060	0.0085	0.0119	0.0231	0.0446	0.0848	0.1596	0.2972
38	0.0004	0.0006	0.0009	0.0013	0.0018	0.0026	0.0037	0.0052	0.0075	0.0105	0.0209	0.0410	0.0793	0.1519	0.2876
39	0.0003	0.0005	0.0007	0.0010	0.0015	0.0022	0.0032	0.0046	0.0065	0.0094	0.0189	0.0377	0.0742	0.1445	0.2784
40	0.0003	0.0004	0.0006	0.0009	0.0013	0.0019	0.0027	0.0040	0.0058	0.0083	0.0171	0.0346	0.0694	0.1375	0.2694

^a See page vi for an explanation of the proper use of this table.

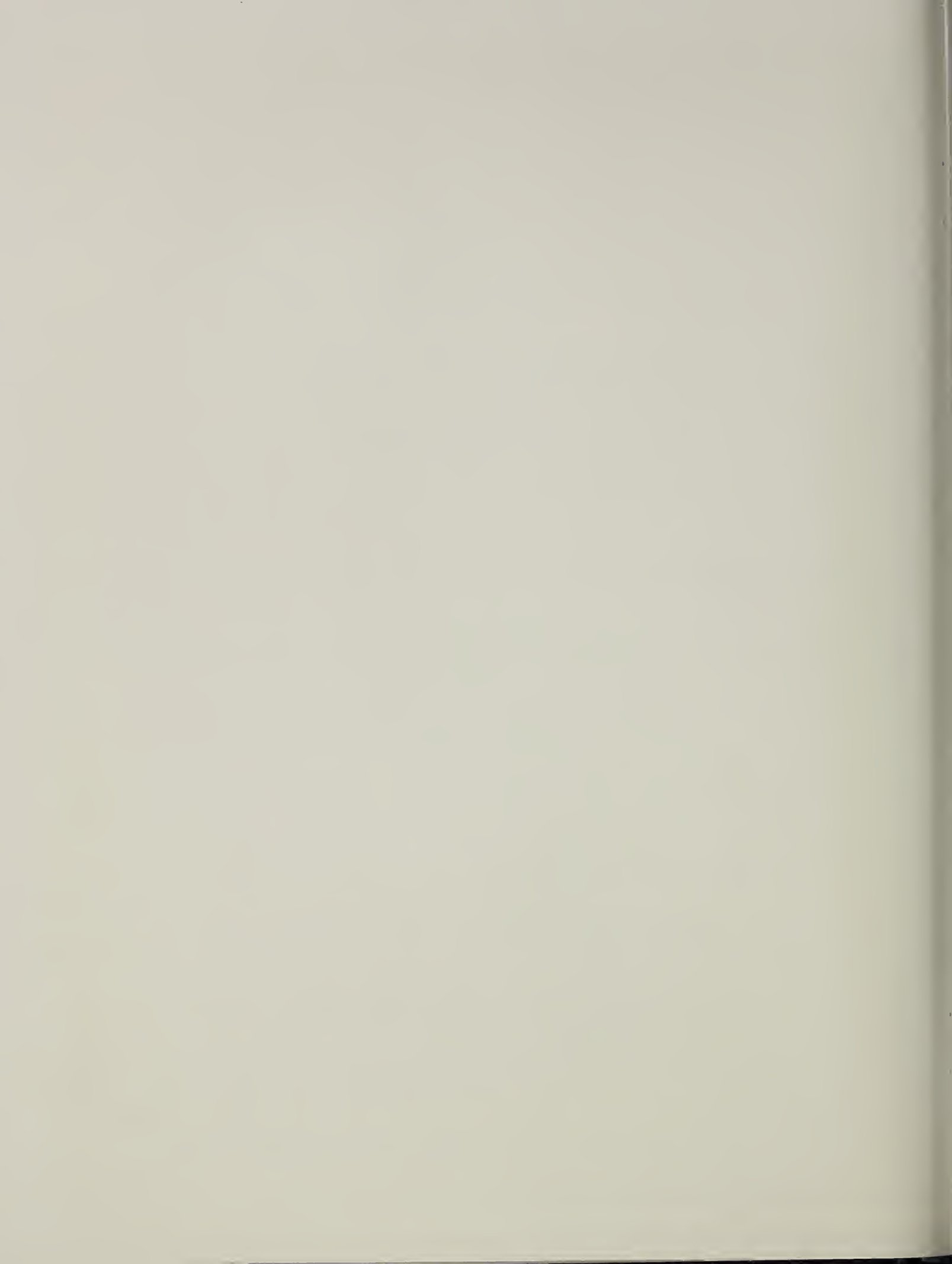
Table S-25
 SINGLE PRESENT VALUE FACTORS, MODIFIED FOR PRICE INCREASES^a
 Discount rate = 25%

Period	Rate of Price Increase per Period																			
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	12%	14%	16%	18%	20%					
1	0.8080	0.8160	0.8240	0.8320	0.8400	0.8480	0.8560	0.8640	0.8720	0.8800	0.8960	0.9120	0.9280	0.9440	0.9600					
2	0.6529	0.6659	0.6790	0.6922	0.7056	0.7191	0.7327	0.7465	0.7604	0.7744	0.8028	0.8317	0.8612	0.8911	0.9216					
3	0.5275	0.5433	0.5595	0.5759	0.5927	0.6098	0.6272	0.6450	0.6631	0.6815	0.7193	0.7586	0.7992	0.8412	0.8847					
4	0.4262	0.4434	0.4610	0.4792	0.4979	0.5171	0.5369	0.5573	0.5782	0.5997	0.6445	0.6918	0.7416	0.7941	0.8493					
5	0.3444	0.3618	0.3799	0.3987	0.4182	0.4385	0.4596	0.4815	0.5042	0.5277	0.5775	0.6309	0.6882	0.7497	0.8154					
6	0.2783	0.2952	0.3130	0.3317	0.3513	0.3719	0.3934	0.4160	0.4396	0.4644	0.5174	0.5754	0.6387	0.7077	0.7828					
7	0.2248	0.2409	0.2579	0.2760	0.2951	0.3153	0.3368	0.3594	0.3834	0.4087	0.4636	0.5248	0.5927	0.6680	0.7514					
8	0.1817	0.1966	0.2125	0.2296	0.2479	0.2674	0.2883	0.3105	0.3343	0.3596	0.4154	0.4786	0.5500	0.6306	0.7214					
9	0.1468	0.1604	0.1751	0.1910	0.2082	0.2268	0.2468	0.2683	0.2915	0.3165	0.3722	0.4365	0.5104	0.5953	0.6925					
10	0.1186	0.1309	0.1443	0.1589	0.1749	0.1923	0.2112	0.2318	0.2542	0.2785	0.3355	0.3981	0.4737	0.5620	0.6648					
11	0.0958	0.1068	0.1189	0.1322	0.1469	0.1631	0.1808	0.2003	0.2217	0.2451	0.2988	0.3630	0.4396	0.5305	0.6382					
12	0.0774	0.0872	0.0980	0.1100	0.1234	0.1383	0.1548	0.1730	0.1933	0.2157	0.2677	0.3311	0.4079	0.5008	0.6127					
13	0.0626	0.0711	0.0807	0.0915	0.1037	0.1173	0.1325	0.1495	0.1685	0.1898	0.2399	0.3019	0.3786	0.4728	0.5882					
14	0.0506	0.0580	0.0665	0.0762	0.0871	0.0994	0.1134	0.1292	0.1470	0.1670	0.2149	0.2754	0.3513	0.4463	0.5647					
15	0.0408	0.0474	0.0548	0.0634	0.0731	0.0843	0.0971	0.1116	0.1282	0.1470	0.1926	0.2511	0.3260	0.4213	0.5421					
16	0.0330	0.0386	0.0452	0.0527	0.0614	0.0715	0.0831	0.0964	0.1118	0.1293	0.1726	0.2290	0.3025	0.3977	0.5204					
17	0.0267	0.0315	0.0372	0.0439	0.0516	0.0606	0.0711	0.0833	0.0974	0.1138	0.1546	0.2089	0.2807	0.3754	0.4996					
18	0.0215	0.0257	0.0307	0.0365	0.0434	0.0514	0.0609	0.0720	0.0850	0.1002	0.1385	0.1905	0.2605	0.3544	0.4796					
19	0.0174	0.0210	0.0253	0.0304	0.0364	0.0436	0.0521	0.0622	0.0741	0.0881	0.1241	0.1737	0.2418	0.3346	0.4604					
20	0.0141	0.0171	0.0208	0.0253	0.0306	0.0370	0.0446	0.0537	0.0646	0.0776	0.1112	0.1585	0.2244	0.3158	0.4420					
21	0.0114	0.0140	0.0172	0.0210	0.0257	0.0314	0.0382	0.0464	0.0563	0.0683	0.0996	0.1445	0.2082	0.2981	0.4243					
22	0.0092	0.0114	0.0141	0.0175	0.0216	0.0266	0.0327	0.0401	0.0491	0.0601	0.0893	0.1318	0.1932	0.2814	0.4073					
23	0.0074	0.0093	0.0116	0.0145	0.0181	0.0225	0.0280	0.0347	0.0428	0.0529	0.0800	0.1202	0.1793	0.2657	0.3911					
24	0.0060	0.0076	0.0096	0.0121	0.0152	0.0191	0.0240	0.0299	0.0374	0.0465	0.0717	0.1096	0.1664	0.2508	0.3754					
25	0.0048	0.0062	0.0079	0.0101	0.0128	0.0162	0.0205	0.0259	0.0326	0.0409	0.0642	0.1000	0.1544	0.2368	0.3604					
26	0.0039	0.0051	0.0065	0.0084	0.0107	0.0137	0.0176	0.0224	0.0284	0.0360	0.0575	0.0912	0.1433	0.2235	0.3460					
27	0.0032	0.0041	0.0054	0.0070	0.0090	0.0117	0.0150	0.0193	0.0248	0.0317	0.0516	0.0831	0.1330	0.2110	0.3321					
28	0.0026	0.0034	0.0044	0.0058	0.0076	0.0099	0.0129	0.0167	0.0218	0.0279	0.0462	0.0758	0.1234	0.1992	0.3189					
29	0.0021	0.0027	0.0036	0.0048	0.0064	0.0084	0.0110	0.0144	0.0188	0.0245	0.0414	0.0692	0.1145	0.1880	0.3061					
30	0.0017	0.0022	0.0030	0.0040	0.0054	0.0071	0.0094	0.0125	0.0164	0.0216	0.0371	0.0631	0.1063	0.1775	0.2939					
31	0.0013	0.0018	0.0025	0.0033	0.0045	0.0060	0.0081	0.0108	0.0143	0.0190	0.0332	0.0575	0.0986	0.1675	0.2821					
32	0.0011	0.0015	0.0020	0.0028	0.0038	0.0051	0.0069	0.0093	0.0125	0.0167	0.0298	0.0525	0.0915	0.1582	0.2708					
33	0.0009	0.0012	0.0017	0.0023	0.0032	0.0043	0.0059	0.0080	0.0109	0.0147	0.0267	0.0478	0.0849	0.1493	0.2600					
34	0.0007	0.0010	0.0014	0.0019	0.0027	0.0037	0.0051	0.0069	0.0095	0.0130	0.0239	0.0436	0.0788	0.1409	0.2496					
35	0.0006	0.0008	0.0011	0.0016	0.0022	0.0031	0.0043	0.0060	0.0083	0.0114	0.0214	0.0398	0.0731	0.1331	0.2396					
36	0.0005	0.0007	0.0009	0.0013	0.0019	0.0026	0.0037	0.0052	0.0072	0.0100	0.0192	0.0363	0.0679	0.1256	0.2300					
37	0.0004	0.0005	0.0008	0.0011	0.0016	0.0022	0.0032	0.0045	0.0063	0.0088	0.0172	0.0331	0.0630	0.1186	0.2208					
38	0.0003	0.0004	0.0006	0.0009	0.0013	0.0019	0.0027	0.0039	0.0055	0.0078	0.0154	0.0302	0.0585	0.1119	0.2120					
39	0.0002	0.0004	0.0005	0.0008	0.0011	0.0016	0.0023	0.0033	0.0048	0.0068	0.0138	0.0275	0.0542	0.1057	0.2035					
40	0.0002	0.0003	0.0004	0.0006	0.0009	0.0014	0.0020	0.0029	0.0042	0.0060	0.0124	0.0251	0.0503	0.0997	0.1954					

^a See page vi for an explanation of the proper use of this table

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11. ABSTRACT (A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here) This report presents eight types of precalculated discount factors that are useful for life-cycle cost studies. Three sets of discount factor tables are provided. The first set includes six common single-payment and uniform-series discount factors. The second set of tables presents uniform present value factors for a series of payments increasing from period to period at a given rate, rather than remaining constant over the entire study period. The third set of tables presents single present value factors for determining the present value of a single payment occurring at a future point in time, to be used when the payment is specified in base-time prices but is expected to increase in value over time at a specified periodic rate. The tables cover discount rates from 1 to 25%, and time periods from 1 to 40 years. Examples of the correct usage of each of these discount factors are provided.			
12. KEY WORDS (Six to twelve entries; alphabetical order; capitalize only proper names; and separate key words by semicolons) building economics; discount factors; engineering-economics; financial analysis; life-cycle costs, present-value analysis			
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	Mar 1	
	Apr 1	
	May 1	
	Jun 1	
	Jul 1	
	Aug 1	
	Sep 1	
	Oct 1	
	Nov 1	
	Dec 1	
	Total	



IR 89-4204

RESTRICTED

ARTICLE III
OF THE CONSTITUTION