

HOW MUCH CAN I SPEND IN RETIREMENT AND NOT GO BROKE?

A METHODOLOGY FOR ADDRESSING THE QUESTION

by

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The author has researched, reasoned, and recorded the data and methodology contained herein as completely, comprehensively, and conscientiously as he knows how. However, all such endeavors, no matter how well-intended and painstakingly undertaken, are subject to human error. Furthermore, because the attempt is to project unmodified historical data into the future, such projections and actual future developments are subject to profound discrepancies. What is more, the shorter the time span over which such comparisons are made, the more vulnerable the projections are to being wide of the mark.

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INTRODUCTION

Our purpose in designing this booklet has been to help you address, in a realistic fashion, the question of how much you might comfortably spend during your retirement years without depleting your resources at a rate faster than you intend. You may modify our assumptions and inputs in accordance with your individual expectations, or otherwise to suit your fancy, but a mathematical technique and some reasonable initial assumptions seem a good way to start.

FOCUS OF THE BOOKLET

The starting point of this exercise requires your estimates of the amounts of various financial assets that you have already accumulated for retirement, or the amounts that you think you will have accumulated by retirement. The procedure is not designed to project how much you will have at retirement, nor is it designed to help you determine how much you need to save to have enough for retirement. The historical and hypothesized rates of return provided in the worksheets may be useful to anyone trying to address these latter two questions, but the format of the booklet is not directed toward answering those specific questions. In particular, the booklet is intended to help you measure the adequacy of what you have, or expect to have, for retirement. The specific personal behavior that such an analysis might influence could be how you modify your spending and savings patterns between now and retirement if you are not yet retired, how much you actually spend during retirement, or how you have your retirement assets invested.

THE CHALLENGE OF RETIREMENT

The ratio of retirement income to pre-retirement income necessary to maintain pre-retirement living standards is called the "income replacement ratio," and this ratio varies widely among individuals. A 1981 study by the President's Commission on Pension Policy found, however, that income replacement ratios for most people range from 55% to 85%, with the ratio's declining with rising incomes. People generally allocate living expenditures in approximately the same pattern during retirement as they did before retirement, with a few exceptions. Retirement is typically accompanied by increased health care expenses but also by decreased insurance and pension expenses and lower income taxes.

Data compiled by the Bureau of Labor Statistics for 1989, comparing average expenditures of individuals in the thirty years prior to age 65, to average expenditures of individuals over 65, found average income in the over-65 age group to be approximately 50% of the income in the 35-64 age group.

Thus, although research indicates that retirees need from 55% to 85% of their pre-retirement income during retirement to maintain their pre-retirement living standards, the data also suggests that, at 50%, on average, retiree income falls somewhat short of that objective, and so people are often required to reduce their living standards substantially during retirement.

IF YOU NEED HELP WITH THE WORKSHEETS

Though it has been our intent to make this exercise as simple for you as we could, we are not convinced that we were as successful in this regard as we originally hoped. Every refinement meant to enhance the precision and reliability of the end-product also augments the complexity of the methodology. If the exercise is too simple, the results will be meaningless; if it is too complicated, it will never be completed, in which case it will also be meaningless. We have tried to reach a compromise between the utility afforded by simplicity and the accuracy for which the whole process is undertaken in the first place. We do suggest that you avail yourself of a calculator.

As you plow through Worksheet #2, what you are doing may seem incomprehensible. Keep on going. Everything gets pulled together and summarized in Worksheet #3, which we think you will find more intelligible, and which we also try to help you interpret at the end.

If, nevertheless, you find the going through the booklet too rough, give us a call, and we shall be happy to help you progress through it. In fact, we will fill it out for you, if you like. Call us, too, if you would like extra worksheets.

Bon Voyage.

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WORKSHEET #1

CALCULATION OF INDICATED PRE-TAX NOMINAL AMOUNTS OF TOTAL RETURN

(A)		(B)		(C)		(D)	
		Expected Value upon Retirement or		Hypothesized Average Annual		Implied Average Annual Total Return	
(1)	<u>Financial Asset Category</u>	<u>Current Value, if Already Retired</u>		<u>Rate of Total Return</u>		<u>(B) x (C)</u>	
(2)	Cash & Equivalents	\$	_____	x	<u>4.7%</u>	=	\$ _____
(3)	Direct Investments:						
(4)	Government Bonds		_____	x	<u>5.0%</u>	=	_____
(5)	Corporate Bonds		_____	x	<u>5.3%</u>	=	_____
(6)	Common Stocks		_____	x	<u>11.9%</u>	=	_____
(7)	Convertible Bonds		_____	x	<u>8.6%</u>	=	_____
(8)	Unit Trusts:						
(9)	Municipal		_____	x	<u>4.4%</u>	=	_____
(10)	Corporate		_____	x	<u>4.7%</u>	=	_____
(11)	Investment Companies						
(12)	Government Bonds		_____	x	<u>3.6%</u>	=	_____
(13)	Corporate Bonds		_____	x	<u>3.5%</u>	=	_____
(14)	U. S. Stocks		_____	x	<u>8.9%</u>	=	_____
(15)	Convertible Bonds		_____	x	<u>6.2%</u>	=	_____
(16)	Balanced Funds		_____	x	<u>6.4%</u>	=	_____
(17)	Foreign Bonds		_____	x	<u>1.1%</u>	=	_____
(18)	Foreign Stocks		_____	x	<u>7.6%</u>	=	_____
(19)	Deferred Annuities:						
(20)	Fixed Rate		_____	x	<u>4.7%</u>	=	_____
(21)	Variable Subaccounts						
(22)	Money Market		_____	x	<u>4.0%</u>	=	_____
(23)	Government Bonds		_____	x	<u>2.9%</u>	=	_____
(24)	Corporate Bonds		_____	x	<u>2.8%</u>	=	_____
(25)	U. S. Stocks		_____	x	<u>8.2%</u>	=	_____
(26)	Convertible Bonds		_____	x	<u>5.5%</u>	=	_____
(27)	Balanced Funds		_____	x	<u>5.7%</u>	=	_____
(28)	Foreign Bonds		_____	x	<u>0.4%</u>	=	_____
(29)	Foreign Stocks		_____	x	<u>6.9%</u>	=	_____
(30)	Total or Weighted Average	\$	_____	x	_____ %	=	\$ _____
			Total Column (B)		Total (D) ÷ Total (B)		Total Column (D)

EXPLANATORY NOTES FOR WORKSHEET #1

ITEMS INCLUDED IN COLUMN (B)

Line #

- (1) It is suggested that you review all of the categories in the list before assigning your investments to any of them. It is important that each be in its proper place. Do not, for example, put General Motors stock under "U. S. Stocks" which is under "Investment Companies." It goes under "Common Stocks" under "Direct Investments." Please give us a call if you have any questions about how to categorize particular investments.
- Include all financial assets, whether held outright or in a tax-deferred retirement plan, such as a pension or profit sharing plan, IRA, TSA, Keogh (HR-10), SEP, SARSEP, ESOP, 401(k), etc. For example, no distinction is drawn here between regular savings in a bank certificate of deposit and an IRA invested in a bank CD.
- (2) Include checking and savings accounts, bank certificates of deposit, money market funds, U. S. Treasury bills, and other cash equivalents.
- (3) We use the term "Direct Investments" here to refer to stocks and bonds owned outright and managed by the investor. If the investments are owned outright by the investor, but managed by an investment management firm for an ongoing annual fee, they should be listed below under the category of "Investment Companies." Alternatively, they may be listed here, if the "hypothesized average annual rate of total return" percentage in Column (C) is reduced by the amount of the annual management fees paid for the management service.
- (4) Include U. S. Government, U. S. Government agency, and municipal bonds. Tax-free bonds are included here with taxable bonds and treated on a "taxable-equivalent" basis. In short, their hypothesized returns are augmented to approximate their comparable returns if they were taxable. The income portions of all final indicated maximum disbursement estimates (Worksheet #3) will, therefore, need to be treated as fully taxable, and so subject to the individual's particular federal and state income tax brackets.
- (5) Include non-convertible corporate bonds and non-convertible preferred stocks.
- (6) Include foreign stocks and limited partnerships in this category.
- (7) Include convertible preferred stock in this category.
- (11) Include both closed-end investment companies (usually traded on a stock exchange) and open-end investment companies (most usually referred to as "mutual funds"). Also include here managed and wrap-fee accounts.
- (16) Include asset allocation mutual funds.

SUGGESTIONS FOR COLUMN (D)

The entries in Column (D) represent the amount in Column (B) multiplied by the % in Column (C). Watch out for decimal places. In Line (2), $4.7\% = 0.047$; in Line (6), $11.9\% = 0.119$; and, in Line (28), $0.4\% = .004$.

WORKSHEET #2

CALCULATION OF ALTERNATIVE POSSIBLE EXPENDITURE RATES

- (1) _____ years = your age at your nearest birthday, if you are already retired, or your expected retirement age, if you are not yet retired.
- (2) _____ years = your spouse's age (if you are married) at spouse's nearest birthday, if you are already retired, or at your expected retirement age, if you are not yet retired.
- (3) _____ years = life expectancy of self, if single, or of surviving spouse, if married, from Table I, using ages in (1) and (2) above. This is a gender-based table. You will notice that the life expectancy of a woman is five years longer than that of a man, at all ages. If you are a single male, find your age going down the first column; if you are a single female, find your age going down the second column. In either case, you will find your life expectancy in the same row in the third column. If you are a married couple, go across the top row to find the age of the husband and down the second column to find the age of the wife. The number at the point of intersection will be the life expectancy of the second to die. Round the life expectancy to the nearest year.
- (4) _____ years = years from (1) above to age 100, if single, or from lesser of (1) or (2) to age 100, if married. (Some people, less concerned with the tenth decade, prefer to use age 90.)
- (5) _____ % = indicated weighted average annual rate of total return = Item (C)(30) at bottom of Column (C) on Worksheet #1 (page 3).
- (6) _____ % = inflation-adjusted weighted average annual rate of total return, hypothesizing inflation at 4.4% per year (the average rate of increase of the Consumer Price Index over the 50-year period 1945-94). This figure is calculated by adding to 1 the % in (5) above, dividing by the sum of 1 and the % inflation rate, and subtracting 1. For example, if the % in (5) were 8.1%, the calculation would be as follows:

$$(1 + 8.1\%) \div (1 + 4.4\%) - 1 = (1.081 \div 1.044) - 1 = 1.035 - 1 = .035 = 3.5\%$$

Use the % in (5) above

$$(1 + \text{_____}\%) \div (1 + 4.4\%) - 1 = (\text{_____} \div 1.044) - 1 = \text{_____} - 1 = \text{_____} = \text{_____}\%$$

This number alternatively may be approximated by subtracting the inflation rate from (5) as follows:

$$8.1\% - 4.4\% = 3.7\%$$

Use the % in (5) above

$$\text{_____}\% - 4.4\% = \text{_____}\%$$

- (7) \$ _____ = total value of financial assets expected upon retirement or total current value of financial assets, if already retired = Item (B)(30) at bottom of Column (B) on Worksheet #1 (page 3).
- (8) \$ _____ = indicated current, or first retirement year, maximum expenditure rate, if purchasing power of estate is to be preserved = (6) x (7).
- (9) _____ = life expectancy present value factor = number from Table II using life expectancy in (3) and % in (5). Find life expectancy in top row and rate of return in first column.
- (10) _____ = age 100 present value factor = number from Table II using years to age 100 in (4) and % in (5).
- (11) \$ _____ = present value of ultimate estate at end of life expectancy, if nominal (dollar) value of estate is maintained = (7) x (9).
- (12) \$ _____ = present value of ultimate estate at age 100, if nominal (dollar) value of estate is maintained = (7) x (10).
- (13) \$ _____ = portion of current or initial retirement assets available for dissipation over life expectancy, if only nominal (dollar) value of estate is preserved = (7) - (11).
- (14) \$ _____ = portion of current or initial retirement assets available for dissipation to age 100, if only nominal (dollar) value of estate is preserved = (7) - (12).
- (15) _____ = annuity factor over life expectancy = number from Table III using life expectancy in (3) and % in (6). Find life expectancy in top row and rate of return in first column.
- (16) _____ = annuity factor to age 100 = number from Table III using years to age 100 in (4) and % in (6).
- (17) \$ _____ = maximum current, or first retirement year, annual expenditure rate, allowing increases for inflation to age 100, and with nominal value of estate preserved = (14) x (16).
- (18) \$ _____ = maximum current, or first retirement year, annual expenditure rate, allowing increases for inflation over life expectancy, and with nominal value of estate preserved = (13) x (15).
- (19) \$ _____ = maximum current, or first retirement year, annual expenditure rate, allowing increases for inflation to age 100, and with complete dissipation of estate = (7) x (16).
- (20) \$ _____ = maximum current, or first retirement year, annual expenditure rate, allowing increases for inflation over life expectancy, with complete dissipation of estate = (7) x (15).

WORKSHEET #3

CURRENT OR FIRST RETIREMENT YEAR MAXIMUM EXPENDITURE RATE

	(A)	(B)	(C)	(D)	(E)
(1)	Extent of <u>Capital Utilization</u>	Annually to <u>Age 100</u>	Annually for Life <u>Expectancy</u>	Monthly to Age 100 <u>(B÷12)</u>	Monthly for Life Expectancy <u>(C÷12)</u>
(2)	Purchasing Power of Estate Preserved	\$ _____ Line (8)	\$ _____ Line (8)	\$ _____ Line (8)÷12	\$ _____ Line (8)÷12
(3)	Nominal Value of Estate Preserved	\$ _____ Line (17)	\$ _____ Line (18)	\$ _____ Line (17)÷12	\$ _____ Line (18)÷12
(4)	Estate Dissipated	\$ _____ Line (19)	\$ _____ Line (20)	\$ _____ Line (19)÷12	\$ _____ Line (20)÷12

INTERPRETATIONS

INCOME TAXES

The foregoing results are before income taxes. If you are trying to calculate your after-tax, disposable income, you will need to estimate your retirement tax bracket and subtract from the foregoing figures accordingly.

We have not differentiated between investment returns that are currently taxable and those upon which income taxes are deferred. The prime benefits of income tax deferral come in one's pre-retirement years when one is adding to retirement savings, rather than depleting them. Withdrawals from fully-deductible IRAs and other tax-deferred plans are, of course, fully taxed in the year of withdrawal, and so, in one's retirement years, these taxes may offset much of, or more than, the tax-deferral benefits still available on funds not yet withdrawn. For example, if one has a fully-deductible IRA in which, in one year, he earns 5% and, in that same year, because of his minimum distribution requirement, or his need for the money, withdraws 10% (the minimum distribution for a single individual, age 79, is 10.0%), with respect to that account, he will be taxed the same as an individual who had a fully-taxable account upon which he earned 10%. In other words, he will be taxed on 10%, even though he earns only 5%.

INFLATION

The figures in Worksheet #3 represent the maximum spending rates in the later of the current year or the first retirement year. Spending in future years is not assumed to remain level. Rather, the computations have allowed for an increase in spending at the rate of 4.4% per year as an allowance for inflation. In other words, the computations attempt to provide for constant purchasing power throughout one's retirement. It is unlikely that \$1,000 will buy as much twenty years hence as it buys today, and so allowance in our computations must be made for this fact, or we magnify the risk of finding ourselves prematurely impoverished.

Though inflation has averaged 4.4% over the past half century, it has averaged 5.7% over the past quarter century, and we have known double-digit rates in some of those years. 4.4% may not be a high enough figure to hypothesize over the next quarter century; but, fortunately, higher rates of inflation tend to beget higher rates of return. Just as the average rate of inflation has been higher over the past 25 years than the

average over the entire 50-year period used as our benchmark, so, too, have the rates of return on stocks, bonds, and cash been significantly higher over this same period.

RELATIVE RATES OF RETURN

Following these interpretive and concluding notes is a series of explanatory notes elaborating on our rationale for each "hypothesized average annual rate of total return" provided in Worksheet #1. If you have reason to believe any of these hypothesized rates of return are unrealistic, we invite your comments.

Some of our hypothesized rates of return may, indeed, be at variance with what seem current today. But such are the vagaries of rates of return. Just as it was unwise to predicate one's permanent retirement lifestyle on the double-digit CD rates available in the early 1980s, it would have been equally imprudent to assume permanence in the exuberance of the stock market that accompanied the subsequent decline in interest rates over the balance of the 1980s. When it comes to inflation, interest rates, and returns on equity, no one has yet come up with more reliable assumptions for the future than simple extrapolations of the very long-term norms of the past.

But, in actuality, it is less the absolute values of inflation and rates of return about which we are concerned and more the differences among them. If the rate of inflation is high, and our rates of return are also high, we may be no worse off nor better off than we would be with low inflation and low rates of return. Similarly, though over any short period of time, the rates of return on various investments may differ markedly from the rates of the past, the differentials among those rates for the different investment categories will probably show far less variability. In other words, whatever their absolute levels happen to be, over longer-periods of time, bonds will probably continue to return more than cash, and stocks will probably continue to return more than bonds. It is the efficient exploitation of these differentials among rates of return, and not the prediction of their absolute values, that is the essence of successful investment management.

If, nevertheless, you are determined to assume higher rates of return in your computations than those we have hypothesized on Worksheet #1, be sure to use an inflation rate correspondingly higher than the 4.4% we have tendered in our Worksheet #2. For example, if, for a particular investment vehicle in which you are heavily invested and/or have a high degree of faith, you want to use an hypothesized return that is 1.5% higher than the rate we have suggested for that vehicle, be sure to add 1.5% to all of our other estimates, and be absolutely sure to add 1.5% to the hypothesized rate of inflation. In other words, use

5.9% for inflation, instead of 4.4%. If you are consistent in making such adjustments, you will probably discover that your final conclusions will not differ significantly from those arrived at using our own suggested hypothesized rates of return and inflation.

OTHER SOURCES OF INCOME

Our computations do not, of course, take into consideration other sources of retiree income. Social Security, veterans' pensions, or other government-sponsored retirement plans may be an important part of your retirement income. You may own income producing real estate or raw land or other assets that you can sell to produce additional funds for retirement. Hopefully, however, this analysis of your personal intangible, financial assets, when considered in conjunction with these other sources, will help give you a clearer picture of your overall retirement circumstances and prospects.

CONCLUSION

If you are not happy with the numbers in Worksheet #3, and want to do something to make them larger, one approach is to modify your asset mix. If you would like to have us help you explore this possibility, we shall be happy to assist you. Please just pass on to us the data you have entered in Column (B) of Worksheet #1, and we shall respond with our suggestions as to how they might be constructively modified. (We have included an abbreviated Worksheet #1 at the very end of this booklet which you may tear out, fill out, and mail to us.) In any event, we hope that you will give us a call or drop us a note to tell us about your experience with our booklet.

Thank you.

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DERIVATIONS OF HYPOTHESIZED RATES OF RETURN IN COLUMN (C) OF WORKSHEET #1

Rates of return, as used in this exercise, refer to average annual compound rates of "total return." "Total return" is defined as the sum (or difference) of interest or dividends on an investment plus (or minus) the appreciation (or depreciation) on the investment, over some period of time. As is the usual case, the period of time is assumed here to be one year.

Our basic data are of two types. The first consists of average annual compound long-term rates of total return for four major asset classes and inflation, as explained in Notes (1) to (6) below. The second type of data, to which the rest of this section is devoted, consist of adjustments to the first type, to reflect the expenses associated with the investment vehicles by which the various basic asset classes may be indirectly owned. The derivation of this second type of data is based upon much shorter spans of time. The use of shorter time spans for the expense data is necessary, first, because such data is not readily available for long periods of time; second, because some of the vehicles have not existed over long periods of time; and, third, because even those vehicles that have existed over long periods of time have changed in character quite markedly in recent years. But this should not impugn the value of this second type of data. While the rates of return on various investment classes may fluctuate wildly from year to year, and so require long time spans to be used for predictive purposes, the expenses associated with operating an investment vehicle should be relatively constant from year to year. Shorter time spans should, therefore, be quite adequate for this latter purpose.

Line

- (1) Our hypothesized rates of total return for the major asset classes are those historical rates found in Ibbotson Associates' 1995 Yearbook, *Stocks, Bonds, Bills, and Inflation*, covering the 50-year period, 1945-94, or rates based upon those figures, as explained below.
- (2) U. S. Treasury bills of 30-day maturities.
- (4) U. S. Government bonds with 20-year maturities.
- (5) Salomon Brothers Long-Term, High-Grade, Corporate Bond Index which has an approximate average maturity of 20 years.
- (6) Standard & Poor's 500 Composite Index from 1957 to the present, and the S&P 90 from 1945 to 1956.
- (7) As a cross between corporate bonds and common stocks, convertible bonds may be expected to deliver rates of return that fall somewhere between the rates of return on these two asset classes. Over the past ten years, the average annual rate of total return on the *Morningstar* "Convertible Bond Overview" category (10.90%) exceeded the mean between the "Corporate Bond - General Overview" (9.41%) and the common stock "Growth & Income Overview" categories (11.77%) by only about 3/10 of 1%. Over half of the bonds in the convertible bond "Overview" category were non-investment grade, or "junk" bonds. Total returns on higher-quality bonds have been somewhat less than the returns on junk bonds over this period; hence, we have used the exact mean between corporate bond and common stock returns as our benchmark for convertible bonds of "average" quality.
- (8) Indicated rates of return are those of the underlying investments, as indicated above, less annual expenses of 0.6%. This expense estimate, taken from the December 13, 1994 prospectus for the Nuveen Tax-Exempt Unit Trust, Series #773, National Insured Trust #285, represents the difference between the total annual interest income on the bonds in the trust as a percent of the aggregate offering price of the bonds in the trust and the estimated net annual income per unit as a percent of the offering price per unit.

- (11) Indicated rates of return are those of the comparable direct investments above, less historical benchmark average annual total return efficiency shortfalls, as tabulated from an appropriate *Morningstar* mutual fund "Overview" category for the 10-year period ending December 31, 1994, unless otherwise noted. The number of mutual funds indicated as covered in each category refers to the number at the end of the period. Investment company return efficiency shortfalls are attributable to the various ongoing fees and expenses associated with investment company ownership and to "market impact" trading costs associated with the size of investment company portfolios and so the size of positions traded, or unable to be traded.
- (12) Based upon an average total return efficiency shortfall of 1.4% per year of the *Morningstar* "Government Bond - Treasury Overview" (8.17%, 66 mutual funds), relative to the Lehman Brothers Government Bond Index (9.57%). This 1.4% shortfall is subtracted from the Ibbotson 50-year average of 5.0% for U. S. Government bonds to produce an hypothesized average net total return of 3.6% per year.
- (13) Based upon an average total return efficiency shortfall of 1.8% per year of the *Morningstar* "Corporate Bond - High-Quality Overview" (8.83%, 153 mutual funds), relative to the Lehman Brothers Corporate Bond Index (10.63%). This 1.8% shortfall is subtracted from the Ibbotson 50-year average of 5.3% for Corporate bonds to produce an hypothesized average net total return of 3.5% per year.
- (14) Based upon an average total return efficiency shortfall of 3.0% per year of the *Morningstar* "Growth & Income Overview" (11.77%, 387 mutual funds) and the "Equity-Income Overview" (11.59%, 99 mutual funds), relative to composite benchmarks based upon the percentages of each category's representation at the end of the period in sectors for which an index is available. These two Overview categories were selected because they had the highest representations of all categories in the Standard & Poor's 500. The respective benchmarks for each category were constructed as follows:

Index for Market Sector	10-yr. Average Annual Total Return of Market Sector	Growth & Income Overview		Equity Income Overview	
		% of Portfolio in Market <u>Sector</u>	Weighted Return Expected from <u>Sector</u>	% of Portfolio in Market <u>Sect</u> or	Weighted Return Expected from <u>Sector</u>
		—	—		—
S&P 500	14.38%	75.4%	10.84%	72.0%	10.35%
S&P 400	16.04%	8.6%	1.38%	8.5%	1.36%
Wilshire 4500	12.63%	11.1%	1.40%	13.3%	1.68%
MSCI EAFE	17.55%	6.0%	<u>1.05%</u>	7.6%	<u>1.33%</u>
Weighted Average Total Return:			14.67%		14.72%

The S&P 500 Composite and the S&P MidCap 400 are the actual market sectors in which the fund categories are invested. The Wilshire 4500 is a proxy for the "U. S. Small Capitalization" sector. It represents the Wilshire 5000 (the broadest-based aggregate measure of stock prices, representing all stocks traded on the New York and American stock exchanges plus the actively traded over-the-counter stocks), ex- the Standard & Poor's 500. The Morgan Stanley Capital International Europe, Australia, and Far East Index (MSCI EAFE) is a proxy for the "Foreign" sector. An aggregate of 15 individual country indexes, excluding Canada and the U. S., this index is widely accepted as a benchmark for international stock performance.

The average return (11.68%) for the two mutual fund categories is subtracted from the average return (14.70%) for the markets in which the funds were invested, producing a shortfall of 3.02%. This 3.0%

shortfall is subtracted from the Ibbotson 50-year average for the common stock index of 11.9% to produce an hypothesized average net total return of 8.9% per year.

- (15) The mean between (13) and (14). Please see (7) above
- (16) Both balanced funds and asset allocation funds tend to be about half invested in stocks, with the remainder in bonds and cash. Balanced funds are typically 1/2 stocks, 1/3 bonds, and 1/6 cash. This mix is used to arrive at an indicated return for balanced funds ($8.9\% \div 2 + 3.5\% \div 3 + 4.7\% \div 6 = 6.4\%$).
- (17) Based upon an average total return efficiency shortfall of 4.2% per year of the *Morningstar* "World Bond Overview" (7.37%, 133 mutual funds), relative to the Salomon Brothers World Government Bond Index (11.52%) over the past five years. The 4.2% shortfall is subtracted from the Ibbotson 50-year average for the corporate bond index of 5.3% to produce an hypothesized average net total return of 1.1% per year. Please see, also, the additional paragraphs on foreign investing in (18) below. [For the ten-year period, the shortfall is 5.6% (15.11% for the Salomon Brothers World Government Bond Index minus 9.47% for the *Morningstar* "World Bond Overview"); and, for the last three years, the shortfall is 5.0% (8.77% - 3.74%). The ten-year figures produce a hypothesized average net total return of -0.3%, while the three-year figures produce a return of 0.3%. Though we believe the indicated ten-year return is the more probable return for an investment company invested in foreign bonds, we have arbitrarily deferred to the five-year figure to avoid for our readers the added the complication of having to deal with negative rates of total return in the worksheet.]
- (18) Based upon an average total return efficiency shortfall of 4.3% per year of the *Morningstar* "World Stock Overview" (13.29%, 145 mutual funds), relative to the Morgan Stanley Europe, Australia, Far East Capital Index (17.55%). The 4.3% shortfall is subtracted from the Ibbotson 50-year average for the U. S. common stock index of 11.9% to produce an hypothesized average net total return of 7.6% per year.

Because of the efficiency with which capital flows among international securities markets, there is no reason to believe that the average returns on foreign securities will differ significantly from the returns on U. S. securities of comparable quality and risk. Over longer periods of time, in fact, they have not. While the mean between the average annual total return of the Standard & Poor's 500 (14.38%) and the Standard & Poor's MidCap 400 (16.04%), over the past ten years, has been 15.21%, the average annual total return for the Morgan Stanley World Capital Index has been 14.84%.

Foreign fixed income investing may be compared to U. S. fixed income investing with the data in *Morningstar* in the following manner: The "Short-Term World Income Overview" index (-0.64%) for the last five years (the index is not available for ten years) is averaged with the "World Bond Overview" index (7.49%) over the past five years, producing an average total return of 3.37% per year. The "Government Bond - U. S. Treasury Overview" (6.70%) is then averaged with the average return on 90-Day U. S. Treasury bills (4.72%) over the same period, producing an average total return of 5.71%.

The only significant differences between the long-term rates of return on domestic versus foreign securities for U. S. investors, is the greater cost to U. S. investors of owning foreign securities. Included among these incremental costs are those associated with exchanging currencies between U. S. dollars and the currency in which a particular foreign security is denominated; higher transaction fees and taxes associated with trading on foreign exchanges; foreign taxes withheld on foreign dividends (from 15% to 35%); and, especially in the case of mutual funds and closed-end investment companies, higher management fees attributable to higher travel and other research expenses. Foreign securities do, also, entail greater risk to U. S. investors because of the added element of foreign exchange risk which is not present in U. S. securities.

- (20) Fixed-rate deferred annuities have not existed long enough to have historical rate-of-return records as long as those available for more traditional stocks, bonds, and cash. Such investments are, however, similar to bank certificates of deposit (except that income taxes on their income is deferred until withdrawal; there is a 10% tax penalty, in addition to the regular income tax, on accrued income if withdrawn before age 59 1/2; and they do not carry FDIC insurance). For this reason, their average rates of return over time should not differ significantly from the rates of return on other cash equivalents. Our survey of the 52 insurance companies covered by the *Morningstar* Variable Annuities/Variable Life service that offer fixed rate annuities produced an average one-year rate identical to the rate on U. S. Treasury bills of 60-day maturity.
- (21) The investment vehicles that constitute the variable part of variable annuities are essentially mutual funds but are called "subaccounts." Though both mutual funds and subaccounts are charged fees for management and other services that they require in common, and though mutual funds may have some expenses associated with them that subaccounts do not carry, there are more significant expenses charged against subaccounts that mutual funds do not carry. They include an annual mortality and expense risk (M&E) charge of about 1.25% per year and an additional administrative fee of about 0.15% per year to cover costs involved in offering and administering the variable annuity, such as for printing and distributing correspondence.

As with mutual funds, it should be possible to approximate the net cost of subaccount expenses by measuring the long-term collective total return efficiency shortfalls of these subaccounts against benchmark indices of the markets in which the subaccounts invest. There are, however, very few subaccounts in existence today that were in existence ten years ago, or even five years ago, and what data there are show far wider divergences than found in the mutual fund data used above.

To deal with the wide disparity in the data, we have averaged the returns of ten *Morningstar* subaccount categories with corresponding *Morningstar* mutual fund categories over the past five years and found the average incremental shortfall for subaccounts in excess of the efficiency shortfall for mutual funds to be 0.7%. Given the observation that the M&E and administrative charges are the same for all of an insurance company's subaccounts, we have simply subtracted 0.7% from each mutual fund hypothesized rate of return to arrive at the corresponding subaccount hypothesized rate of return.

TABLE I (PAGE 1 OF 2)
SINGLE AND JOINT SURVIVOR LIFE EXPECTANCIES

<u>M</u>	<u>F</u>	<u>M></u>	<u>45</u>	<u>46</u>	<u>47</u>	<u>48</u>	<u>49</u>	<u>50</u>	<u>51</u>	<u>52</u>	<u>53</u>	<u>54</u>	<u>55</u>	<u>56</u>	<u>57</u>	<u>58</u>	<u>59</u>	<u>60</u>	<u>61</u>	<u>62</u>	<u>63</u>	<u>64</u>	<u>65</u>
40	45	33.8	39.3	38.9	38.6	38.3	38.0	37.7	37.4	37.1	36.9	36.6	36.4	36.2	36.0	35.9	35.7	35.5	35.4	35.3	35.1	35.0	34.9
41	46	33.0	38.8	38.4	38.0	37.7	37.3	37.0	36.7	36.5	36.2	36.0	35.7	35.5	35.3	35.1	35.0	34.8	34.6	34.5	34.4	34.2	34.1
42	47	32.1	38.2	37.8	37.5	37.1	36.8	36.4	36.1	35.8	35.6	35.3	35.1	34.8	34.6	34.4	34.2	34.1	33.9	33.7	33.6	33.5	33.4
43	48	31.2	37.7	37.3	36.9	36.5	36.2	35.8	35.5	35.2	34.9	34.7	34.4	34.2	33.9	33.7	33.5	33.3	33.2	33.0	32.9	32.7	32.6
44	49	30.4	37.2	36.8	36.4	36.0	35.6	35.3	34.9	34.6	34.3	34.0	33.8	33.5	33.3	33.0	32.8	32.6	32.5	32.3	32.1	32.0	31.8
45	50	29.6	36.8	36.3	35.9	35.5	35.1	34.7	34.4	34.0	33.7	33.4	33.1	32.9	32.6	32.4	32.2	31.9	31.8	31.6	31.4	31.3	31.1
46	51	28.7	36.3	35.9	35.4	35.0	34.6	34.2	33.8	33.5	33.1	32.8	32.5	32.2	32.0	31.7	31.5	31.3	31.1	30.9	30.7	30.5	30.4
47	52	27.9	35.9	35.4	35.0	34.5	34.1	33.7	33.3	32.9	32.6	32.2	31.9	31.6	31.4	31.1	30.9	30.6	30.4	30.2	30.0	29.8	29.7
48	53	27.1	35.5	35.0	34.5	34.0	33.6	33.2	32.8	32.4	32.0	31.7	31.4	31.1	30.8	30.5	30.2	29.9	29.6	29.4	29.1	28.9	28.7
49	54	26.3	35.1	34.6	34.1	33.6	33.1	32.7	32.3	31.9	31.5	31.2	30.8	30.5	30.2	29.9	29.6	29.4	29.1	28.9	28.7	28.5	28.3
50	55	25.5	34.7	34.2	33.7	33.2	32.7	32.3	31.8	31.4	31.0	30.6	30.3	29.9	29.6	29.3	29.0	28.8	28.5	28.3	28.1	27.8	27.6
51	56	24.7	34.4	33.8	33.3	32.8	32.3	31.8	31.4	30.9	30.5	30.1	29.8	29.4	29.1	28.8	28.5	28.2	27.9	27.7	27.4	27.2	27.0
52	57	24.0	34.0	33.5	32.9	32.4	31.9	31.4	30.9	30.5	30.1	29.7	29.3	28.9	28.6	28.2	27.9	27.6	27.3	27.1	26.8	26.6	26.4
53	58	23.2	33.7	33.1	32.6	32.0	31.5	31.0	30.5	30.1	29.6	29.2	28.8	28.4	28.1	27.7	27.4	27.1	26.8	26.5	26.2	26.0	25.8
54	59	22.4	33.4	32.8	32.2	31.7	31.2	30.6	30.1	29.7	29.2	28.8	28.3	27.9	27.6	27.2	26.9	26.5	26.2	25.9	25.7	25.4	25.2
55	60	21.7	33.1	32.5	31.9	31.4	30.8	30.3	29.8	29.3	28.8	28.3	27.9	27.5	27.1	26.7	26.4	26.0	25.7	25.4	25.1	24.9	24.6
56	61	21.0	32.9	32.2	31.6	31.1	30.5	29.9	29.4	28.9	28.4	27.9	27.5	27.1	26.7	26.3	25.9	25.5	25.2	24.9	24.6	24.3	24.1
57	62	20.3	32.6	32.0	31.4	30.8	30.2	29.6	29.1	28.6	28.1	27.6	27.1	26.7	26.2	25.8	25.4	25.1	24.7	24.4	24.1	23.8	23.5
58	63	19.6	32.4	31.7	31.1	30.5	29.9	29.3	28.8	28.2	27.7	27.2	26.7	26.3	25.8	25.4	25.0	24.6	24.3	23.9	23.6	23.3	23.0
59	64	18.9	32.2	31.5	30.9	30.2	29.6	29.0	28.5	27.9	27.4	26.9	26.4	25.9	25.4	25.0	24.6	24.2	23.8	23.5	23.1	22.8	22.5
60	65	18.2	31.9	31.3	30.6	30.0	29.4	28.8	28.2	27.6	27.1	26.5	26.0	25.5	25.1	24.6	24.2	23.8	23.4	23.0	22.7	22.3	22.0
61	66	17.5	31.8	31.1	30.4	29.8	29.1	28.5	27.9	27.3	26.8	26.2	25.7	25.2	24.7	24.3	23.8	23.5	23.0	22.6	22.2	21.9	21.6
62	67	16.9	31.6	30.9	30.2	29.5	28.9	28.3	27.7	27.1	26.5	25.9	25.4	24.9	24.4	23.9	23.5	23.0	22.6	22.2	21.8	21.5	21.1
63	68	16.2	31.4	30.7	30.0	29.3	28.7	28.1	27.4	26.8	26.2	25.7	25.1	24.6	24.1	23.6	23.1	22.7	22.2	21.8	21.4	21.1	20.7
64	69	15.6	31.3	30.5	29.8	29.2	28.5	27.8	27.2	26.6	26.0	25.4	24.9	24.3	23.8	23.3	22.8	22.3	21.9	21.5	21.1	20.7	20.3
65	70	15.0	31.1	30.4	29.7	29.0	28.3	27.6	27.0	26.4	25.8	25.2	24.6	24.1	23.5	23.0	22.5	22.0	21.6	21.1	20.7	20.3	19.9
66	71	14.4	31.0	30.2	29.5	28.8	28.1	27.5	26.8	26.2	25.6	25.0	24.4	23.8	23.3	22.7	22.2	21.7	21.3	20.8	20.4	20.0	19.6
67	72	13.8	30.8	30.1	29.4	28.7	28.0	27.3	26.6	26.0	25.4	24.7	24.1	23.6	23.0	22.5	21.9	21.4	21.0	20.5	20.1	19.6	19.2
68	73	13.2	30.7	30.0	29.3	28.5	27.8	27.1	26.5	25.8	25.2	24.6	23.9	23.4	22.8	22.2	21.7	21.2	20.7	20.2	19.8	19.3	18.9
69	74	12.6	30.6	29.9	29.1	28.4	27.7	27.0	26.3	25.7	25.0	24.4	23.8	23.2	22.6	22.0	21.5	20.9	20.4	19.9	19.5	19.0	18.6
70	75	12.1	30.5	29.8	29.0	28.3	27.6	26.9	26.2	25.5	24.8	24.2	23.6	23.0	22.4	21.8	21.2	20.7	20.2	19.7	19.2	18.7	18.3
71	76	11.6	30.4	29.7	28.9	28.2	27.5	26.7	26.0	25.4	24.7	24.0	23.4	22.8	22.2	21.6	21.0	20.5	20.0	19.5	19.0	18.5	18.0
72	77	11.0	30.4	29.6	28.8	28.1	27.4	26.6	25.9	25.2	24.6	23.9	23.3	22.6	22.0	21.4	20.9	20.3	19.8	19.2	18.7	18.2	17.8
73	78	10.5	30.3	29.5	28.7	28.0	27.3	26.5	25.8	25.1	24.4	23.8	23.1	22.5	21.9	21.3	20.7	20.1	19.6	19.0	18.5	18.0	17.5
74	79	10.1	30.2	29.4	28.7	27.9	27.2	26.4	25.7	25.0	24.3	23.6	23.0	22.3	21.7	21.1	20.5	19.9	19.4	18.8	18.3	17.8	17.3
75	80	9.6	30.1	29.4	28.6	27.8	27.1	26.3	25.6	24.9	24.2	23.5	22.9	22.2	21.6	21.0	20.4	19.8	19.2	18.7	18.1	17.6	17.1
76	81	9.1	30.1	29.3	28.5	27.8	27.0	26.3	25.5	24.8	24.1	23.4	22.8	22.1	21.5	20.8	20.2	19.6	19.1	18.5	18.0	17.4	16.9
77	82	8.7	30.0	29.2	28.5	27.7	26.9	26.2	25.5	24.7	24.0	23.3	22.7	22.0	21.3	20.7	20.1	19.5	18.9	18.3	17.8	17.3	16.7
78	83	8.3	30.0	29.2	28.4	27.6	26.9	26.1	25.4	24.7	23.9	23.2	22.6	21.9	21.2	20.6	20.0	19.4	18.8	18.2	17.6	17.1	16.6
79	84	7.8	29.9	29.2	28.4	27.6	26.8	26.1	25.3	24.6	23.9	23.2	22.5	21.8	21.1	20.5	19.9	19.3	18.7	18.1	17.5	17.0	16.4
80	85	7.5	29.9	29.1	28.3	27.5	26.8	26.0	25.3	24.5	23.8	23.1	22.4	21.7	21.1	20.4	19.8	19.1	18.5	18.0	17.4	16.8	16.3
81	86	7.1	29.9	29.1	28.3	27.5	26.7	26.0	25.2	24.5	23.7	23.0	22.3	21.6	21.0	20.3	19.7	19.0	18.4	17.8	17.3	16.7	16.2
82	87	6.7	29.8	29.0	28.2	27.5	26.7	25.9	25.2	24.4	23.7	23.0	22.3	21.6	20.9	20.2	19.6	19.0	18.3	17.7	17.2	16.6	16.0
83	88	6.3	29.8	29.0	28.2	27.4	26.6	25.9	25.1	24.4	23.6	22.9	22.2	21.5	20.8	20.2	19.5	18.9	18.3	17.7	17.1	16.5	15.9
84	89	6.0	29.8	29.0	28.2	27.4	26.6	25.8	25.1	24.3	23.6	22.9	22.2	21.5	20.8	20.1	19.4	18.8	18.2	17.6	17.0	16.4	15.8
85	90	5.7	29.8	28.9	28.1	27.4	26.6	25.8	25.0	24.3	23.5	22.8	22.1	21.4	20.7	20.0	19.4	18.7	18.1	17.5	16.9	16.3	15.8
86	91	5.4																					
87	92	5.1																					
88	93	4.8																					
89	94	4.5																					
90	95	4.2																					
91	96	4.0																					
92	97	3.7																					
93	98	3.5																					
94	99	3.3																					
95	100	3.1																					
96	101	2.9																					
97	102	2.7																					
98	103	2.5																					
99	104	2.3																					
100	105	2.1																					

TABLE I (PAGE 2 OF 2)
SINGLE AND JOINT SURVIVOR LIFE EXPECTANCIES

<u>M</u>	<u>F</u>	<u>M></u>	<u>66</u>	<u>67</u>	<u>68</u>	<u>69</u>	<u>70</u>	<u>71</u>	<u>72</u>	<u>73</u>	<u>74</u>	<u>75</u>	<u>76</u>	<u>77</u>	<u>78</u>	<u>79</u>	<u>80</u>	<u>81</u>	<u>82</u>	<u>83</u>	<u>84</u>	<u>85</u>
40	45	33.8	34.8	34.7	34.6	34.6	34.5	34.4	34.4	34.3	34.3	34.2	34.2	34.1	34.1	34.1	34.1	34.0	34.0	34.0	34.0	34.0
41	46	33.0	34.0	33.9	33.8	33.8	33.7	33.6	33.5	33.5	33.4	33.4	33.3	33.3	33.3	33.2	33.2	33.2	33.2	33.1	33.1	33.1
42	47	32.1	33.2	33.1	33.0	33.0	32.9	32.8	32.7	32.7	32.6	32.6	32.5	32.5	32.4	32.4	32.4	32.3	32.3	32.3	32.3	32.3
43	48	31.2	32.5	32.4	32.3	32.2	32.1	32.0	31.9	31.9	31.8	31.8	31.7	31.7	31.6	31.6	31.5	31.5	31.5	31.5	31.4	31.4
44	49	30.4	31.7	31.6	31.5	31.4	31.3	31.2	31.1	31.1	31.0	30.9	30.9	30.8	30.8	30.8	30.7	30.7	30.7	30.6	30.6	30.6
45	50	29.6	31.0	30.8	30.7	30.6	30.5	30.4	30.4	30.3	30.2	30.1	30.1	30.0	30.0	29.9	29.9	29.9	29.8	29.8	29.8	29.8
46	51	28.7	30.2	30.1	30.0	29.9	29.8	29.7	29.6	29.5	29.4	29.4	29.3	29.2	29.2	29.2	29.1	29.1	29.0	29.0	29.0	28.9
47	52	27.9	29.5	29.4	29.3	29.1	29.0	28.9	28.8	28.7	28.7	28.6	28.5	28.5	28.4	28.4	28.3	28.3	28.2	28.2	28.2	28.1
48	53	27.1	28.8	28.7	28.5	28.4	28.3	28.2	28.1	28.0	27.9	27.8	27.8	27.7	27.6	27.6	27.5	27.5	27.4	27.4	27.4	27.4
49	54	26.3	28.1	28.0	27.8	27.7	27.6	27.5	27.4	27.3	27.2	27.1	27.0	26.9	26.9	26.8	26.8	26.7	26.7	26.6	26.6	26.6
50	55	25.5	27.5	27.3	27.1	27.0	26.9	26.7	26.6	26.5	26.4	26.3	26.3	26.2	26.1	26.1	26.0	26.0	25.9	25.9	25.8	25.8
51	56	24.7	26.8	26.6	26.5	26.3	26.2	26.0	25.9	25.8	25.7	25.6	25.5	25.5	25.4	25.3	25.3	25.2	25.2	25.1	25.1	25.0
52	57	24.0	26.2	26.0	25.8	25.7	25.5	25.4	25.2	25.1	25.0	24.9	24.8	24.7	24.7	24.6	24.5	24.5	24.4	24.4	24.3	24.3
53	58	23.2	25.6	25.4	25.2	25.0	24.8	24.7	24.6	24.4	24.3	24.2	24.1	24.0	23.9	23.9	23.8	23.7	23.7	23.6	23.6	23.5
54	59	22.4	25.0	24.7	24.6	24.4	24.2	24.0	23.9	23.8	23.6	23.5	23.4	23.3	23.2	23.2	23.1	23.0	23.0	22.9	22.9	22.8
55	60	21.7	24.4	24.1	23.9	23.8	23.6	23.4	23.3	23.1	23.0	22.9	22.8	22.7	22.6	22.5	22.4	22.3	22.3	22.2	22.2	22.1
56	61	21.0	23.8	23.6	23.4	23.2	23.0	22.8	22.6	22.5	22.3	22.2	22.1	22.0	21.9	21.8	21.7	21.6	21.6	21.5	21.5	21.4
57	62	20.3	23.3	23.0	22.8	22.6	22.4	22.2	22.0	21.9	21.7	21.6	21.5	21.3	21.2	21.1	21.1	21.0	20.9	20.8	20.8	20.7
58	63	19.6	22.7	22.5	22.2	22.0	21.8	21.6	21.4	21.3	21.1	21.0	20.8	20.7	20.6	20.5	20.4	20.3	20.2	20.2	20.1	20.0
59	64	18.9	22.2	21.9	21.7	21.5	21.2	21.0	20.9	20.7	20.5	20.4	20.2	20.1	20.0	19.9	19.8	19.7	19.6	19.5	19.4	19.4
60	65	18.2	21.7	21.4	21.2	20.9	20.7	20.5	20.3	20.1	19.9	19.8	19.6	19.5	19.4	19.3	19.1	19.0	19.0	18.9	18.8	18.7
61	66	17.5	21.3	21.0	20.7	20.4	20.2	20.0	19.8	19.6	19.4	19.2	19.1	18.9	18.8	18.7	18.5	18.4	18.3	18.3	18.2	18.1
62	67	16.9	20.8	20.5	20.2	19.9	19.7	19.5	19.2	19.0	18.8	18.7	18.5	18.3	18.2	18.1	18.0	17.8	17.7	17.7	17.6	17.5
63	68	16.2	20.4	20.1	19.8	19.5	19.2	19.0	18.7	18.5	18.3	18.1	18.0	17.8	17.6	17.5	17.4	17.3	17.2	17.1	17.0	16.9
64	69	15.6	20.0	19.6	19.3	19.0	18.7	18.5	18.2	18.0	17.8	17.6	17.4	17.3	17.1	17.0	16.8	16.7	16.6	16.5	16.4	16.3
65	70	15.0	19.6	19.2	18.9	18.6	18.3	18.0	17.8	17.5	17.3	17.1	16.9	16.7	16.6	16.4	16.3	16.2	16.0	15.9	15.8	15.8
66	71	14.4	19.2	18.8	18.5	18.2	17.9	17.6	17.3	17.1	16.9	16.6	16.4	16.3	16.1	15.9	15.8	15.6	15.5	15.4	15.3	15.2
67	72	13.8	18.8	18.5	18.1	17.8	17.5	17.2	16.9	16.7	16.4	16.2	16.0	15.8	15.6	15.4	15.3	15.1	15.0	14.9	14.8	14.7
68	73	13.2	18.5	18.1	17.8	17.4	17.1	16.8	16.5	16.2	16.0	15.7	15.5	15.3	15.1	15.0	14.8	14.6	14.5	14.4	14.3	14.2
69	74	12.6	18.2	17.8	17.4	17.1	16.7	16.4	16.1	15.8	15.6	15.3	15.1	14.9	14.7	14.5	14.3	14.2	14.0	13.9	13.8	13.7
70	75	12.1	17.9	17.5	17.1	16.7	16.4	16.1	15.8	15.5	15.2	14.9	14.7	14.5	14.3	14.1	13.9	13.7	13.6	13.4	13.3	13.2
71	76	11.6	17.6	17.2	16.8	16.4	16.1	15.7	15.4	15.1	14.8	14.5	14.3	14.1	13.8	13.6	13.5	13.3	13.1	13.0	12.8	12.7
72	77	11.0	17.3	16.9	16.5	16.1	15.8	15.4	15.1	14.8	14.5	14.2	13.9	13.7	13.5	13.2	13.0	12.9	12.7	12.5	12.4	12.3
73	78	10.5	17.1	16.7	16.2	15.8	15.5	15.1	14.8	14.4	14.1	13.8	13.6	13.3	13.1	12.9	12.7	12.5	12.3	12.1	12.0	11.8
74	79	10.1	16.9	16.4	16.0	15.6	15.2	14.8	14.5	14.1	13.8	13.5	13.2	13.0	12.7	12.5	12.3	12.1	11.9	11.7	11.6	11.4
75	80	9.6	16.6	16.2	15.7	15.3	14.9	14.5	14.2	13.8	13.5	13.2	12.9	12.6	12.4	12.2	11.9	11.7	11.5	11.4	11.2	11.0
76	81	9.1	16.4	16.0	15.5	15.1	14.7	14.3	13.9	13.6	13.2	12.9	12.6	12.3	12.1	11.8	11.6	11.4	11.2	11.0	10.8	10.7
77	82	8.7	16.3	15.8	15.3	14.9	14.5	14.1	13.7	13.3	13.0	12.6	12.3	12.1	11.8	11.5	11.3	11.1	10.8	10.7	10.5	10.3
78	83	8.3	16.1	15.6	15.1	14.7	14.3	13.8	13.5	13.1	12.7	12.4	12.1	11.8	11.5	11.2	11.0	10.7	10.5	10.3	10.1	10.0
79	84	7.8	15.9	15.4	15.0	14.5	14.1	13.6	13.2	12.9	12.5	12.2	11.8	11.5	11.2	11.0	10.7	10.5	10.2	10.0	9.8	9.6
80	85	7.5	15.8	15.3	14.8	14.3	13.9	13.5	13.0	12.7	12.3	11.9	11.6	11.3	11.0	10.7	10.4	10.2	10.0	9.7	9.5	9.3
81	86	7.1	15.6	15.1	14.6	14.2	13.7	13.3	12.9	12.5	12.1	11.7	11.4	11.1	10.7	10.5	10.2	9.9	9.7	9.5	9.3	9.1
82	87	6.7	15.5	15.0	14.5	14.0	13.6	13.1	12.7	12.3	11.9	11.5	11.2	10.8	10.5	10.2	10.0	9.7	9.4	9.2	9.0	8.8
83	88	6.3	15.4	14.9	14.4	13.9	13.4	13.0	12.5	12.1	11.7	11.4	11.0	10.7	10.3	10.0	9.7	9.5	9.2	9.0	8.7	8.5
84	89	6.0	15.3	14.8	14.3	13.8	13.3	12.8	12.4	12.0	11.6	11.2	10.8	10.5	10.1	9.8	9.5	9.3	9.0	8.7	8.5	8.3
85	90	5.7	15.2	14.7	14.2	13.7	13.2	12.7	12.3	11.8	11.4	11.0	10.7	10.3	10.0	9.6	9.3	9.1	8.8	8.5	8.3	8.1
86	91	5.4																				
87	92	5.1																				
88	93	4.8																				
89	94	4.5																				
90	95	4.2																				
91	96	4.0																				
92	97	3.7																				
93	98	3.5																				
94	99	3.3																				
95	100	3.1																				
96	101	2.9																				
97	102	2.7																				
98	103	2.5																				
99	104	2.3																				
100	105	2.1																				

TABLE II (PAGE 1 OF 4)
PRESENT VALUE FACTORS

<u>%</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>
0.1	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
0.2	1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.98	0.98	0.98	0.98	0.98	0.97	0.97	0.97	0.97	0.97	0.96	0.96	0.96	0.96	0.96	0.96	0.95	0.95
0.3	1.00	0.99	0.99	0.99	0.99	0.98	0.98	0.98	0.97	0.97	0.97	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.93	0.93	0.93
0.4	1.00	0.99	0.99	0.98	0.98	0.98	0.97	0.97	0.96	0.96	0.96	0.95	0.95	0.95	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.92	0.91	0.91	0.91
0.5	1.00	0.99	0.99	0.98	0.98	0.97	0.97	0.96	0.96	0.95	0.95	0.94	0.94	0.93	0.93	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.89	0.89	0.88
0.6	0.99	0.99	0.98	0.98	0.97	0.96	0.96	0.95	0.95	0.94	0.94	0.93	0.93	0.92	0.91	0.91	0.90	0.89	0.89	0.89	0.88	0.88	0.87	0.87	0.86
0.7	0.99	0.99	0.98	0.97	0.97	0.96	0.95	0.95	0.94	0.93	0.93	0.92	0.91	0.91	0.90	0.89	0.89	0.88	0.88	0.87	0.86	0.86	0.85	0.85	0.84
0.8	0.99	0.98	0.98	0.97	0.96	0.95	0.95	0.94	0.93	0.92	0.92	0.91	0.90	0.89	0.89	0.88	0.87	0.87	0.86	0.85	0.85	0.84	0.83	0.83	0.82
0.9	0.99	0.98	0.97	0.96	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88	0.87	0.87	0.86	0.85	0.84	0.84	0.83	0.82	0.81	0.81	0.80
1.0	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84	0.84	0.83	0.82	0.81	0.80	0.80	0.79	0.78
1.1	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84	0.83	0.82	0.81	0.80	0.79	0.79	0.78	0.77	0.76
1.2	0.99	0.98	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84	0.83	0.82	0.81	0.80	0.79	0.78	0.77	0.76	0.75	0.74
1.3	0.99	0.97	0.96	0.95	0.94	0.93	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.83	0.82	0.81	0.80	0.79	0.78	0.77	0.76	0.75	0.74	0.73	0.72
1.4	0.99	0.97	0.96	0.95	0.93	0.92	0.91	0.89	0.88	0.87	0.86	0.85	0.83	0.82	0.81	0.80	0.79	0.78	0.77	0.76	0.75	0.74	0.73	0.72	0.71
1.5	0.99	0.97	0.96	0.94	0.93	0.91	0.90	0.89	0.87	0.86	0.85	0.84	0.82	0.81	0.80	0.79	0.78	0.76	0.75	0.74	0.73	0.72	0.71	0.70	0.69
1.6	0.98	0.97	0.95	0.94	0.92	0.91	0.89	0.88	0.87	0.85	0.84	0.83	0.81	0.80	0.79	0.78	0.76	0.75	0.74	0.73	0.72	0.71	0.69	0.68	0.67
1.7	0.98	0.97	0.95	0.93	0.92	0.90	0.89	0.87	0.86	0.84	0.83	0.82	0.80	0.79	0.78	0.76	0.75	0.74	0.73	0.71	0.70	0.69	0.68	0.67	0.66
1.8	0.98	0.96	0.95	0.93	0.91	0.90	0.88	0.87	0.85	0.84	0.82	0.81	0.79	0.78	0.77	0.75	0.74	0.73	0.71	0.70	0.69	0.68	0.66	0.65	0.64
1.9	0.98	0.96	0.95	0.93	0.91	0.89	0.88	0.86	0.84	0.83	0.81	0.80	0.78	0.77	0.75	0.74	0.73	0.71	0.70	0.69	0.67	0.66	0.65	0.64	0.62
2.0	0.98	0.96	0.94	0.92	0.91	0.89	0.87	0.85	0.84	0.82	0.80	0.79	0.77	0.76	0.74	0.73	0.71	0.70	0.69	0.67	0.66	0.65	0.63	0.62	0.61
2.1	0.98	0.96	0.94	0.92	0.90	0.88	0.86	0.85	0.83	0.81	0.80	0.78	0.76	0.75	0.73	0.72	0.70	0.69	0.67	0.66	0.65	0.63	0.62	0.61	0.59
2.2	0.98	0.96	0.94	0.92	0.90	0.88	0.86	0.84	0.82	0.80	0.79	0.77	0.75	0.74	0.72	0.71	0.69	0.68	0.66	0.65	0.63	0.62	0.61	0.59	0.58
2.3	0.98	0.96	0.93	0.91	0.89	0.87	0.85	0.83	0.81	0.80	0.78	0.76	0.74	0.73	0.71	0.70	0.68	0.66	0.65	0.63	0.62	0.61	0.59	0.58	0.57
2.4	0.98	0.95	0.93	0.91	0.89	0.87	0.85	0.83	0.81	0.79	0.77	0.75	0.73	0.72	0.70	0.68	0.67	0.65	0.64	0.62	0.61	0.59	0.58	0.57	0.55
2.5	0.98	0.95	0.93	0.91	0.88	0.86	0.84	0.82	0.80	0.78	0.76	0.74	0.73	0.71	0.69	0.67	0.66	0.64	0.63	0.61	0.60	0.58	0.57	0.55	0.54
2.6	0.97	0.95	0.93	0.90	0.88	0.86	0.84	0.81	0.79	0.77	0.75	0.73	0.72	0.70	0.68	0.66	0.65	0.63	0.61	0.60	0.58	0.57	0.55	0.54	0.53
2.7	0.97	0.95	0.92	0.90	0.88	0.85	0.83	0.81	0.79	0.77	0.75	0.73	0.71	0.69	0.67	0.65	0.64	0.62	0.60	0.59	0.57	0.56	0.54	0.53	0.51
2.8	0.97	0.95	0.92	0.90	0.87	0.85	0.82	0.80	0.78	0.76	0.74	0.72	0.70	0.68	0.66	0.64	0.63	0.61	0.59	0.58	0.56	0.54	0.53	0.52	0.50
2.9	0.97	0.94	0.92	0.89	0.87	0.84	0.82	0.80	0.77	0.75	0.73	0.71	0.69	0.67	0.65	0.63	0.62	0.60	0.58	0.56	0.55	0.53	0.52	0.50	0.49
3.0	0.97	0.94	0.92	0.89	0.86	0.84	0.81	0.79	0.77	0.74	0.72	0.70	0.68	0.66	0.64	0.62	0.61	0.59	0.57	0.55	0.54	0.52	0.51	0.49	0.48
3.1	0.97	0.94	0.91	0.89	0.86	0.83	0.81	0.78	0.76	0.74	0.71	0.69	0.67	0.65	0.63	0.61	0.60	0.58	0.56	0.54	0.53	0.51	0.50	0.48	0.47
3.2	0.97	0.94	0.91	0.88	0.85	0.83	0.80	0.78	0.75	0.73	0.71	0.69	0.66	0.64	0.62	0.60	0.59	0.57	0.55	0.53	0.52	0.50	0.48	0.47	0.45
3.3	0.97	0.94	0.91	0.88	0.85	0.82	0.80	0.77	0.75	0.72	0.70	0.68	0.66	0.63	0.61	0.59	0.58	0.56	0.54	0.52	0.51	0.49	0.47	0.46	0.44
3.4	0.97	0.94	0.90	0.87	0.85	0.82	0.79	0.77	0.74	0.72	0.69	0.67	0.65	0.63	0.61	0.59	0.57	0.55	0.53	0.51	0.50	0.48	0.46	0.45	0.43
3.5	0.97	0.93	0.90	0.87	0.84	0.81	0.79	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.60	0.58	0.56	0.54	0.52	0.50	0.49	0.47	0.45	0.44	0.42
3.6	0.97	0.93	0.90	0.87	0.84	0.81	0.78	0.75	0.73	0.70	0.68	0.65	0.63	0.61	0.59	0.57	0.55	0.53	0.51	0.49	0.48	0.46	0.44	0.43	0.41
3.7	0.96	0.93	0.90	0.86	0.83	0.80	0.78	0.75	0.72	0.70	0.67	0.65	0.62	0.60	0.58	0.56	0.54	0.52	0.50	0.48	0.47	0.45	0.43	0.42	0.40
3.8	0.96	0.93	0.89	0.86	0.83	0.80	0.77	0.74	0.71	0.69	0.66	0.64	0.62	0.59	0.57	0.55	0.53	0.51	0.49	0.47	0.46	0.44	0.42	0.41	0.39
3.9	0.96	0.93	0.89	0.86	0.83	0.79	0.77	0.74	0.71	0.68	0.66	0.63	0.61	0.59	0.56	0.54	0.52	0.50	0.48	0.47	0.45	0.43	0.41	0.40	0.38
4.0	0.96	0.92	0.89	0.85	0.82	0.79	0.76	0.73	0.70	0.68	0.65	0.62	0.60	0.58	0.56	0.53	0.51	0.49	0.47	0.46	0.44	0.42	0.41	0.39	0.38
4.1	0.96	0.92	0.89	0.85	0.82	0.79	0.75	0.73	0.70	0.67	0.64	0.62	0.59	0.57	0.55	0.53	0.51	0.49	0.47	0.45	0.43	0.41	0.40	0.38	0.37
4.2	0.96	0.92	0.88	0.85	0.81	0.78	0.75	0.72	0.69	0.66	0.64	0.61	0.59	0.56	0.54	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.39	0.37	0.36
4.3	0.96	0.92	0.88	0.85	0.81	0.78	0.74	0.71	0.68	0.66	0.63	0.60	0.58	0.55	0.53	0.51	0.49	0.47	0.45	0.44	0.42	0.40	0.38	0.36	0.35
4.4	0.96	0.92	0.88	0.84	0.81	0.77	0.74	0.71	0.68	0.65	0.62	0.60	0.57	0.55	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.39	0.37	0.36	0.34
4.5	0.96	0.92	0.88	0.84	0.80	0.77	0.73	0.70	0.67	0.64	0.62	0.59	0.56	0.54	0.52	0.49	0.47	0.45	0.43	0.41	0.40	0.38	0.36	0.35	0.33
4.6	0.96	0.91	0.87	0.84	0.80	0.76	0.73	0.70	0.67	0.64	0.61	0.58	0.56	0.53	0.51	0.49	0.47	0.45	0.43	0.41	0.39	0.37	0.36	0.34	0.32
4.7	0.96	0.91	0.87	0.83	0.79	0.76	0.73	0.69	0.66	0.63	0.60	0.58	0.55	0.53	0.50	0.48	0.46	0.44	0.42	0.40	0.38	0.36	0.35	0.33	0.32
4.8	0.95	0.91	0.87	0.83	0.79	0.75	0.72	0.69	0.66	0.63	0.60	0.57	0.54	0.52	0.49	0.47	0.45	0.43	0.41	0.39	0.37	0.36	0.34	0.32	0.31
4.9	0.95	0.91	0.87	0.83	0.79	0.75	0.72	0.68	0.65	0.62	0.59	0.56	0.54	0.51	0.49	0.47	0.44	0.42	0.40	0.38	0.37	0.35	0.33	0.32	0.30
5.0	0.95	0.91	0.86	0.82	0.78	0.75	0.71	0.68	0.64	0.61	0.58	0.56	0.53	0.51	0.48	0.46	0.44	0.42	0.40	0.38	0.36	0.34	0.33	0.31	0.30
5.1	0.95	0.91	0.86	0.82	0.78	0.74	0.71	0.67	0.64	0.61	0.58														

TABLE II (PAGE 2 OF 4)
PRESENT VALUE FACTORS

<u>%</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>	<u>32</u>	<u>33</u>	<u>34</u>	<u>35</u>	<u>36</u>	<u>37</u>	<u>38</u>	<u>39</u>	<u>40</u>	<u>41</u>	<u>42</u>	<u>43</u>	<u>44</u>	<u>45</u>	<u>46</u>	<u>47</u>	<u>48</u>	<u>49</u>	<u>50</u>
0.1	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
0.2	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.91	0.91	0.91	0.91	0.91	0.90
0.3	0.93	0.92	0.92	0.92	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.89	0.89	0.89	0.88	0.88	0.88	0.88	0.87	0.87	0.87	0.87	0.86	0.86
0.4	0.90	0.90	0.89	0.89	0.88	0.88	0.88	0.88	0.87	0.87	0.87	0.86	0.86	0.86	0.85	0.85	0.85	0.84	0.84	0.84	0.83	0.83	0.83	0.82	0.82
0.5	0.88	0.87	0.87	0.87	0.86	0.86	0.85	0.85	0.84	0.84	0.84	0.83	0.83	0.82	0.82	0.82	0.81	0.81	0.80	0.80	0.79	0.79	0.79	0.78	0.78
0.6	0.86	0.85	0.85	0.84	0.84	0.83	0.83	0.82	0.82	0.81	0.81	0.80	0.80	0.79	0.79	0.78	0.78	0.77	0.77	0.76	0.76	0.75	0.75	0.75	0.74
0.7	0.83	0.83	0.82	0.82	0.81	0.81	0.80	0.79	0.79	0.78	0.78	0.77	0.77	0.76	0.76	0.75	0.75	0.74	0.74	0.73	0.73	0.72	0.72	0.71	0.71
0.8	0.81	0.81	0.80	0.79	0.79	0.78	0.77	0.77	0.76	0.76	0.75	0.74	0.74	0.73	0.73	0.72	0.72	0.71	0.70	0.70	0.69	0.69	0.68	0.68	0.67
0.9	0.79	0.79	0.78	0.77	0.76	0.76	0.75	0.74	0.74	0.73	0.72	0.72	0.71	0.71	0.70	0.69	0.69	0.68	0.67	0.67	0.66	0.66	0.65	0.64	0.64
1.0	0.77	0.76	0.76	0.75	0.74	0.73	0.73	0.72	0.71	0.71	0.70	0.69	0.69	0.68	0.67	0.67	0.66	0.65	0.65	0.64	0.63	0.63	0.62	0.61	0.61
1.1	0.75	0.74	0.74	0.73	0.72	0.71	0.70	0.70	0.69	0.68	0.67	0.67	0.66	0.65	0.65	0.64	0.63	0.62	0.62	0.61	0.60	0.60	0.59	0.59	0.58
1.2	0.73	0.72	0.72	0.71	0.70	0.69	0.68	0.67	0.67	0.66	0.65	0.64	0.64	0.63	0.62	0.61	0.61	0.60	0.59	0.58	0.58	0.57	0.56	0.56	0.55
1.3	0.71	0.71	0.70	0.69	0.68	0.67	0.66	0.65	0.64	0.64	0.63	0.62	0.61	0.60	0.60	0.59	0.58	0.57	0.57	0.56	0.55	0.54	0.54	0.53	0.52
1.4	0.70	0.69	0.68	0.67	0.66	0.65	0.64	0.63	0.62	0.61	0.61	0.60	0.59	0.58	0.57	0.56	0.55	0.54	0.53	0.53	0.52	0.51	0.51	0.50	0.50
1.5	0.68	0.67	0.66	0.65	0.64	0.63	0.62	0.61	0.60	0.59	0.59	0.58	0.57	0.56	0.55	0.54	0.53	0.52	0.51	0.50	0.49	0.48	0.47	0.46	0.45
1.6	0.66	0.65	0.64	0.63	0.62	0.61	0.60	0.59	0.58	0.57	0.56	0.55	0.54	0.53	0.52	0.51	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.43
1.7	0.65	0.63	0.62	0.61	0.60	0.59	0.58	0.57	0.56	0.55	0.54	0.53	0.52	0.51	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.41	0.41
1.8	0.63	0.62	0.61	0.60	0.59	0.58	0.57	0.56	0.55	0.54	0.53	0.52	0.51	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.42	0.41	0.41
1.9	0.61	0.60	0.59	0.58	0.57	0.56	0.55	0.54	0.53	0.52	0.51	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.41	0.41	0.40	0.39	0.39
2.0	0.60	0.59	0.57	0.56	0.55	0.54	0.53	0.52	0.51	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.44	0.43	0.42	0.41	0.40	0.39	0.39	0.38	0.37
2.1	0.58	0.57	0.56	0.55	0.54	0.53	0.51	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.44	0.43	0.42	0.41	0.40	0.39	0.38	0.38	0.37	0.36	0.35
2.2	0.57	0.56	0.54	0.53	0.52	0.51	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.41	0.40	0.39	0.38	0.38	0.37	0.36	0.35	0.34	0.34
2.3	0.55	0.54	0.53	0.52	0.51	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.41	0.40	0.39	0.38	0.38	0.37	0.36	0.35	0.34	0.33	0.33	0.32
2.4	0.54	0.53	0.51	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.34	0.34	0.33	0.32	0.31	0.31
2.5	0.53	0.51	0.50	0.49	0.48	0.47	0.45	0.44	0.43	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.35	0.34	0.33	0.32	0.31	0.31	0.30	0.29
2.6	0.51	0.50	0.49	0.48	0.46	0.45	0.44	0.43	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.34	0.33	0.32	0.32	0.31	0.30	0.29	0.28	0.28
2.7	0.50	0.49	0.47	0.46	0.45	0.44	0.43	0.42	0.40	0.39	0.38	0.37	0.36	0.35	0.34	0.34	0.33	0.32	0.31	0.30	0.29	0.29	0.28	0.27	0.26
2.8	0.49	0.47	0.46	0.45	0.44	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.34	0.33	0.32	0.31	0.30	0.30	0.29	0.28	0.27	0.27	0.26	0.25
2.9	0.48	0.46	0.45	0.44	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.34	0.33	0.32	0.31	0.30	0.29	0.28	0.28	0.27	0.26	0.25	0.25	0.24
3.0	0.46	0.45	0.44	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.33	0.33	0.32	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.23	0.23
3.1	0.45	0.44	0.43	0.41	0.40	0.39	0.38	0.37	0.35	0.34	0.33	0.32	0.31	0.30	0.29	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.22	0.21	0.21
3.2	0.44	0.43	0.41	0.40	0.39	0.38	0.36	0.35	0.34	0.33	0.32	0.31	0.30	0.29	0.28	0.27	0.27	0.26	0.25	0.24	0.23	0.23	0.22	0.21	0.21
3.3	0.43	0.42	0.40	0.39	0.38	0.37	0.35	0.34	0.33	0.32	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.22	0.22	0.21	0.20	0.20	0.20
3.4	0.42	0.41	0.39	0.38	0.37	0.35	0.34	0.33	0.32	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.25	0.24	0.23	0.22	0.21	0.21	0.20	0.19	0.19
3.5	0.41	0.40	0.38	0.37	0.36	0.34	0.33	0.32	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.24	0.24	0.23	0.22	0.21	0.21	0.20	0.19	0.19	0.18
3.6	0.40	0.38	0.37	0.36	0.35	0.33	0.32	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.23	0.22	0.21	0.20	0.20	0.19	0.18	0.18	0.17
3.7	0.39	0.37	0.36	0.35	0.34	0.32	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.23	0.22	0.21	0.20	0.19	0.19	0.18	0.17	0.17	0.16
3.8	0.38	0.37	0.35	0.34	0.33	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.22	0.22	0.21	0.20	0.19	0.19	0.18	0.17	0.17	0.16	0.15
3.9	0.37	0.36	0.34	0.33	0.32	0.31	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.22	0.22	0.21	0.20	0.19	0.19	0.18	0.17	0.17	0.16	0.15	0.15
4.0	0.36	0.35	0.33	0.32	0.31	0.30	0.29	0.27	0.26	0.25	0.24	0.23	0.23	0.22	0.21	0.20	0.19	0.19	0.18	0.17	0.16	0.16	0.15	0.15	0.14
4.1	0.35	0.34	0.32	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.22	0.21	0.20	0.19	0.18	0.18	0.17	0.16	0.16	0.15	0.15	0.14	0.13
4.2	0.34	0.33	0.32	0.30	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.22	0.21	0.20	0.19	0.19	0.18	0.17	0.16	0.16	0.15	0.14	0.14	0.13	0.13
4.3	0.33	0.32	0.31	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.22	0.21	0.20	0.19	0.19	0.18	0.17	0.16	0.16	0.15	0.14	0.14	0.13	0.13	0.12
4.4	0.33	0.31	0.30	0.29	0.27	0.26	0.25	0.24	0.23	0.22	0.21	0.20	0.19	0.19	0.18	0.17	0.16	0.16	0.15	0.14	0.14	0.13	0.13	0.12	0.12
4.5	0.32	0.30	0.29	0.28	0.27	0.26	0.24	0.23	0.22	0.21	0.21	0.20	0.19	0.18	0.17	0.16	0.16	0.15	0.14	0.14	0.13	0.13	0.12	0.12	0.11
4.6	0.31	0.30	0.28	0.27	0.26	0.25	0.24	0.23	0.22	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.14	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.11
4.7	0.30	0.29	0.28	0.26	0.25	0.24	0.23	0.22	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.10	0.10
4.8	0.30	0.28	0.27	0.26	0.24	0.23	0.22	0.21	0.20	0.19	0.18	0.18	0.17	0.16	0.15	0.15	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.10	0.10
4.9	0.29	0.27	0.26	0.25	0.24	0.23	0.22	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.10	0.10	0.09
5.0	0.28	0.27	0.26	0.24	0.23	0.22	0.21	0.20	0.19	0.18	0.17	0.16	0.16	0.15	0.14	0.14	0.13	0.12	0.12	0.11	0.11	0.10	0.10	0.09	0.09
5.1	0.27	0.26	0.25	0.24	0.22	0.21	0.20	0.19	0.18	0.18															

TABLE II (PAGE 3 OF 4)
PRESENT VALUE FACTORS

<u>%</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>
7.6	0.93	0.86	0.80	0.75	0.69	0.64	0.60	0.56	0.52	0.48	0.45	0.42	0.39	0.36	0.33	0.31	0.29	0.27	0.25	0.23	0.21	0.20	0.19	0.17	0.16
7.7	0.93	0.86	0.80	0.74	0.69	0.64	0.59	0.55	0.51	0.48	0.44	0.41	0.38	0.35	0.33	0.31	0.28	0.26	0.24	0.23	0.21	0.20	0.18	0.17	0.16
7.8	0.93	0.86	0.80	0.74	0.69	0.64	0.59	0.55	0.51	0.47	0.44	0.41	0.38	0.35	0.32	0.30	0.28	0.26	0.24	0.22	0.21	0.19	0.18	0.16	0.15
7.9	0.93	0.86	0.80	0.74	0.68	0.63	0.59	0.54	0.50	0.47	0.43	0.40	0.37	0.34	0.32	0.30	0.27	0.25	0.24	0.22	0.20	0.19	0.17	0.16	0.15
8.0	0.93	0.86	0.79	0.74	0.68	0.63	0.58	0.54	0.50	0.46	0.43	0.40	0.37	0.34	0.32	0.29	0.27	0.25	0.23	0.21	0.20	0.18	0.17	0.16	0.15
8.1	0.93	0.86	0.79	0.73	0.68	0.63	0.58	0.54	0.50	0.46	0.42	0.39	0.36	0.34	0.31	0.29	0.27	0.25	0.23	0.21	0.19	0.18	0.17	0.15	0.14
8.2	0.92	0.85	0.79	0.73	0.67	0.62	0.58	0.53	0.49	0.45	0.42	0.39	0.36	0.33	0.31	0.28	0.26	0.24	0.22	0.21	0.19	0.18	0.16	0.15	0.14
8.3	0.92	0.85	0.79	0.73	0.67	0.62	0.57	0.53	0.49	0.45	0.42	0.38	0.35	0.33	0.30	0.28	0.26	0.24	0.22	0.20	0.19	0.17	0.16	0.15	0.14
8.4	0.92	0.85	0.79	0.72	0.67	0.62	0.57	0.52	0.48	0.45	0.41	0.38	0.35	0.32	0.30	0.28	0.25	0.23	0.22	0.20	0.18	0.17	0.16	0.14	0.13
8.5	0.92	0.85	0.78	0.72	0.67	0.61	0.56	0.52	0.48	0.44	0.41	0.38	0.35	0.32	0.29	0.27	0.25	0.23	0.21	0.20	0.18	0.17	0.15	0.14	0.13
8.6	0.92	0.85	0.78	0.72	0.66	0.61	0.56	0.52	0.48	0.44	0.40	0.37	0.34	0.32	0.29	0.27	0.25	0.23	0.21	0.19	0.18	0.16	0.15	0.14	0.13
8.7	0.92	0.85	0.78	0.72	0.66	0.61	0.56	0.51	0.47	0.43	0.40	0.37	0.34	0.31	0.29	0.26	0.24	0.22	0.20	0.19	0.17	0.16	0.15	0.14	0.12
8.8	0.92	0.84	0.78	0.71	0.66	0.60	0.55	0.51	0.47	0.43	0.40	0.36	0.33	0.31	0.28	0.26	0.24	0.22	0.20	0.19	0.17	0.16	0.14	0.13	0.12
8.9	0.92	0.84	0.77	0.71	0.65	0.60	0.55	0.51	0.46	0.43	0.39	0.36	0.33	0.30	0.28	0.26	0.23	0.22	0.20	0.18	0.17	0.15	0.14	0.13	0.12
9.0	0.92	0.84	0.77	0.71	0.65	0.60	0.55	0.50	0.46	0.42	0.39	0.36	0.33	0.30	0.27	0.25	0.23	0.21	0.19	0.18	0.16	0.15	0.14	0.13	0.12
9.1	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.18	0.16	0.15	0.13	0.12	0.11
9.2	0.92	0.84	0.77	0.70	0.64	0.59	0.54	0.49	0.45	0.41	0.38	0.35	0.32	0.29	0.27	0.24	0.22	0.21	0.19	0.17	0.16	0.14	0.13	0.12	0.11
9.3	0.91	0.84	0.77	0.70	0.64	0.59	0.54	0.49	0.45	0.41	0.38	0.34	0.31	0.29	0.26	0.24	0.22	0.20	0.18	0.17	0.15	0.14	0.13	0.12	0.11
9.4	0.91	0.84	0.76	0.70	0.64	0.58	0.53	0.49	0.45	0.41	0.37	0.34	0.31	0.28	0.26	0.24	0.22	0.20	0.18	0.17	0.15	0.14	0.13	0.12	0.11
9.5	0.91	0.83	0.76	0.70	0.64	0.58	0.53	0.48	0.44	0.40	0.37	0.34	0.31	0.28	0.26	0.23	0.21	0.20	0.18	0.16	0.15	0.14	0.12	0.11	0.10
9.6	0.91	0.83	0.76	0.69	0.63	0.58	0.53	0.48	0.44	0.40	0.36	0.33	0.30	0.28	0.25	0.23	0.21	0.19	0.18	0.16	0.15	0.13	0.12	0.11	0.10
9.7	0.91	0.83	0.76	0.69	0.63	0.57	0.52	0.48	0.43	0.40	0.36	0.33	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.14	0.13	0.12	0.11	0.10
9.8	0.91	0.83	0.76	0.69	0.63	0.57	0.52	0.47	0.43	0.39	0.36	0.33	0.30	0.27	0.25	0.22	0.20	0.19	0.17	0.15	0.14	0.13	0.12	0.11	0.10
9.9	0.91	0.83	0.75	0.69	0.62	0.57	0.52	0.47	0.43	0.39	0.35	0.32	0.29	0.27	0.24	0.22	0.20	0.18	0.17	0.15	0.14	0.13	0.11	0.10	0.09
10.0	0.91	0.83	0.75	0.68	0.62	0.56	0.51	0.47	0.42	0.39	0.35	0.32	0.29	0.26	0.24	0.22	0.20	0.18	0.16	0.15	0.14	0.12	0.11	0.10	0.09
10.1	0.91	0.82	0.75	0.68	0.62	0.56	0.51	0.46	0.42	0.38	0.35	0.32	0.29	0.26	0.24	0.21	0.19	0.18	0.16	0.15	0.13	0.12	0.11	0.10	0.09
10.2	0.91	0.82	0.75	0.68	0.62	0.56	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.26	0.23	0.21	0.19	0.17	0.16	0.14	0.13	0.12	0.11	0.10	0.09
10.3	0.91	0.82	0.75	0.68	0.61	0.56	0.50	0.46	0.41	0.38	0.34	0.31	0.28	0.25	0.23	0.21	0.19	0.17	0.16	0.14	0.13	0.12	0.10	0.10	0.09
10.4	0.91	0.82	0.74	0.67	0.61	0.55	0.50	0.45	0.41	0.37	0.34	0.31	0.28	0.25	0.23	0.21	0.19	0.17	0.15	0.14	0.13	0.11	0.10	0.09	0.08
10.5	0.90	0.82	0.74	0.67	0.61	0.55	0.50	0.45	0.41	0.37	0.33	0.30	0.27	0.25	0.22	0.20	0.18	0.17	0.15	0.14	0.12	0.11	0.10	0.09	0.08
10.6	0.90	0.82	0.74	0.67	0.60	0.55	0.49	0.45	0.40	0.37	0.33	0.30	0.27	0.24	0.22	0.20	0.18	0.16	0.15	0.13	0.12	0.11	0.10	0.09	0.08
10.7	0.90	0.82	0.74	0.67	0.60	0.54	0.49	0.44	0.40	0.36	0.33	0.30	0.27	0.24	0.22	0.20	0.18	0.16	0.14	0.13	0.12	0.11	0.10	0.09	0.08
10.8	0.90	0.81	0.74	0.66	0.60	0.54	0.49	0.44	0.40	0.36	0.32	0.29	0.26	0.24	0.21	0.19	0.17	0.16	0.14	0.13	0.12	0.10	0.09	0.09	0.08
10.9	0.90	0.81	0.73	0.66	0.60	0.54	0.48	0.44	0.39	0.36	0.32	0.29	0.26	0.23	0.21	0.19	0.17	0.16	0.14	0.13	0.11	0.10	0.09	0.08	0.08
11.0	0.90	0.81	0.73	0.66	0.59	0.53	0.48	0.43	0.39	0.35	0.32	0.29	0.26	0.23	0.21	0.19	0.17	0.15	0.14	0.12	0.11	0.10	0.09	0.08	0.07
11.1	0.90	0.81	0.73	0.66	0.59	0.53	0.48	0.43	0.39	0.35	0.31	0.28	0.25	0.23	0.21	0.19	0.17	0.15	0.14	0.12	0.11	0.10	0.09	0.08	0.07
11.2	0.90	0.81	0.73	0.65	0.59	0.53	0.48	0.43	0.38	0.35	0.31	0.28	0.25	0.23	0.20	0.18	0.16	0.15	0.13	0.12	0.11	0.10	0.09	0.08	0.07
11.3	0.90	0.81	0.73	0.65	0.59	0.53	0.47	0.42	0.38	0.34	0.31	0.28	0.25	0.22	0.20	0.18	0.16	0.15	0.13	0.12	0.11	0.09	0.09	0.08	0.07
11.4	0.90	0.81	0.72	0.65	0.58	0.52	0.47	0.42	0.38	0.34	0.30	0.27	0.25	0.22	0.20	0.18	0.16	0.14	0.13	0.12	0.10	0.09	0.08	0.07	0.07
11.5	0.90	0.80	0.72	0.65	0.58	0.52	0.47	0.42	0.38	0.34	0.30	0.27	0.24	0.22	0.20	0.18	0.16	0.14	0.13	0.11	0.10	0.09	0.08	0.07	0.07
11.6	0.90	0.80	0.72	0.64	0.58	0.52	0.46	0.42	0.37	0.33	0.30	0.27	0.24	0.22	0.19	0.17	0.15	0.14	0.12	0.11	0.10	0.09	0.08	0.07	0.06
11.7	0.90	0.80	0.72	0.64	0.58	0.51	0.46	0.41	0.37	0.33	0.30	0.27	0.24	0.21	0.19	0.17	0.15	0.14	0.12	0.11	0.10	0.09	0.08	0.07	0.06
11.8	0.89	0.80	0.72	0.64	0.57	0.51	0.46	0.41	0.37	0.33	0.29	0.26	0.23	0.21	0.19	0.17	0.15	0.13	0.12	0.11	0.10	0.09	0.08	0.07	0.06
11.9	0.89	0.80	0.71	0.64	0.57	0.51	0.46	0.41	0.36	0.32	0.29	0.26	0.23	0.21	0.19	0.17	0.15	0.13	0.12	0.11	0.09	0.08	0.08	0.07	0.06
12.0	0.89	0.80	0.71	0.64	0.57	0.51	0.45	0.40	0.36	0.32	0.29	0.26	0.23	0.20	0.18	0.16	0.15	0.13	0.12	0.10	0.09	0.08	0.07	0.07	0.06
12.1	0.89	0.80	0.71	0.63	0.56	0.50	0.45	0.40	0.36	0.32	0.28	0.25	0.23	0.20	0.18	0.16	0.14	0.13	0.11	0.10	0.09	0.08	0.07	0.06	0.06
12.2	0.89	0.79	0.71	0.63	0.56	0.50	0.44	0.40	0.35	0.31	0.28	0.25	0.22	0.20	0.18	0.16	0.14	0.12	0.11	0.10	0.09	0.08	0.07	0.06	0.06
12.3	0.89	0.79	0.70	0.63	0.56	0.50	0.44	0.39	0.35	0.31	0.28	0.25	0.22	0.19	0.17	0.15	0.14	0.12	0.11	0.10	0.09	0.08	0.07	0.06	0.05
12.4	0.89	0.79	0.70	0.62	0.55	0.49	0.44	0.39	0.35	0.31	0.27	0.24	0.22	0.19	0.17	0.15	0.14	0.12	0.11	0.09	0.08	0.07	0.07	0.06	0.05
12.5	0.89	0.79	0.70	0.62	0.55	0.49	0.44	0.39	0.34	0.31	0.27	0.24	0.21	0.19	0.17	0.15	0.13	0.12	0.10	0.09	0.08	0.07	0.07	0.06	0.05
12.6	0.89	0.79	0.70	0.62	0.55	0.49	0.43	0.38																	

TABLE II (PAGE 4 OF 4)
PRESENT VALUE FACTORS

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
7.6	0.15	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03
7.7	0.15	0.13	0.13	0.12	0.11	0.10	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02
7.8	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02
7.9	0.14	0.13	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02
8.0	0.14	0.13	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02
8.1	0.13	0.12	0.11	0.10	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02
8.2	0.13	0.12	0.11	0.10	0.09	0.09	0.08	0.07	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
8.3	0.13	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02
8.4	0.12	0.11	0.10	0.10	0.09	0.08	0.08	0.07	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
8.5	0.12	0.11	0.10	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02
8.6	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
8.7	0.11	0.11	0.10	0.09	0.08	0.08	0.07	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
8.8	0.11	0.10	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8.9	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01
9.0	0.11	0.10	0.09	0.08	0.08	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
9.1	0.10	0.10	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
9.2	0.10	0.09	0.09	0.08	0.07	0.07	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
9.3	0.10	0.09	0.08	0.08	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
9.4	0.10	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
9.5	0.09	0.09	0.08	0.07	0.07	0.06	0.05	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
9.6	0.09	0.08	0.08	0.07	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
9.7	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
9.8	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
9.9	0.09	0.08	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
10.0	0.08	0.08	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
10.1	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
10.2	0.08	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
10.3	0.08	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
10.4	0.08	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
10.5	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
10.6	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
10.7	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
10.8	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
10.9	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
11.0	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
11.1	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
11.2	0.06	0.06	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
11.3	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
11.4	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
11.5	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
11.6	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
11.7	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
11.8	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
11.9	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
12.0	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
12.1	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
12.2	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
12.3	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
12.4	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
12.5	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02														

TABLE III (PAGE 1 OF 4)
ANNUITY FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
0.1	1.00	0.50	0.33	0.25	0.20	0.17	0.14	0.13	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.04
0.2	1.00	0.50	0.33	0.25	0.20	0.17	0.14	0.13	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.04
0.3	1.00	0.50	0.34	0.25	0.20	0.17	0.14	0.13	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.04	0.04
0.4	1.00	0.50	0.34	0.25	0.20	0.17	0.15	0.13	0.11	0.10	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.04	0.04
0.5	1.01	0.50	0.34	0.25	0.20	0.17	0.15	0.13	0.11	0.10	0.09	0.09	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.04
0.6	1.01	0.50	0.34	0.25	0.20	0.17	0.15	0.13	0.11	0.10	0.09	0.09	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.04
0.7	1.01	0.51	0.34	0.25	0.20	0.17	0.15	0.13	0.12	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.04
0.8	1.01	0.51	0.34	0.26	0.20	0.17	0.15	0.13	0.12	0.10	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.04
0.9	1.01	0.51	0.34	0.26	0.21	0.17	0.15	0.13	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.04
1.0	1.01	0.51	0.34	0.26	0.21	0.17	0.15	0.13	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05
1.1	1.01	0.51	0.34	0.26	0.21	0.17	0.15	0.13	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05
1.2	1.01	0.51	0.34	0.26	0.21	0.17	0.15	0.13	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05
1.3	1.01	0.51	0.34	0.26	0.21	0.17	0.15	0.13	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05
1.4	1.01	0.51	0.34	0.26	0.21	0.17	0.15	0.13	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05
1.5	1.02	0.51	0.34	0.26	0.21	0.18	0.15	0.13	0.12	0.11	0.10	0.09	0.09	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05
1.6	1.02	0.51	0.34	0.26	0.21	0.18	0.15	0.13	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05
1.7	1.02	0.51	0.34	0.26	0.21	0.18	0.15	0.13	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05
1.8	1.02	0.51	0.35	0.26	0.21	0.18	0.15	0.14	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05
1.9	1.02	0.51	0.35	0.26	0.21	0.18	0.15	0.14	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05
2.0	1.02	0.52	0.35	0.26	0.21	0.18	0.15	0.14	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05
2.1	1.02	0.52	0.35	0.26	0.21	0.18	0.16	0.14	0.12	0.11	0.10	0.10	0.09	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05	0.05
2.2	1.02	0.52	0.35	0.26	0.21	0.18	0.16	0.14	0.12	0.11	0.10	0.10	0.09	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05	0.05
2.3	1.02	0.52	0.35	0.26	0.21	0.18	0.16	0.14	0.12	0.11	0.10	0.10	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.05	0.05
2.4	1.02	0.52	0.35	0.27	0.21	0.18	0.16	0.14	0.12	0.11	0.10	0.10	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05
2.5	1.03	0.52	0.35	0.27	0.22	0.18	0.16	0.14	0.13	0.11	0.11	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05
2.6	1.03	0.52	0.35	0.27	0.22	0.18	0.16	0.14	0.13	0.11	0.11	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05
2.7	1.03	0.52	0.35	0.27	0.22	0.18	0.16	0.14	0.13	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06
2.8	1.03	0.52	0.35	0.27	0.22	0.18	0.16	0.14	0.13	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06
2.9	1.03	0.52	0.35	0.27	0.22	0.18	0.16	0.14	0.13	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06
3.0	1.03	0.52	0.35	0.27	0.22	0.18	0.16	0.14	0.13	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06
3.1	1.03	0.52	0.35	0.27	0.22	0.19	0.16	0.14	0.13	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06
3.2	1.03	0.52	0.35	0.27	0.22	0.19	0.16	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06
3.3	1.03	0.52	0.36	0.27	0.22	0.19	0.16	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06
3.4	1.03	0.53	0.36	0.27	0.22	0.19	0.16	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06	0.06
3.5	1.04	0.53	0.36	0.27	0.22	0.19	0.16	0.15	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06	0.06
3.6	1.04	0.53	0.36	0.27	0.22	0.19	0.16	0.15	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06	0.06
3.7	1.04	0.53	0.36	0.27	0.22	0.19	0.16	0.15	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.06	0.06
3.8	1.04	0.53	0.36	0.27	0.22	0.19	0.17	0.15	0.13	0.12	0.11	0.11	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.06	0.06
3.9	1.04	0.53	0.36	0.27	0.22	0.19	0.17	0.15	0.13	0.12	0.11	0.11	0.10	0.09	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06
4.0	1.04	0.53	0.36	0.28	0.22	0.19	0.17	0.15	0.13	0.12	0.11	0.11	0.10	0.09	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.06
4.1	1.04	0.53	0.36	0.28	0.23	0.19	0.17	0.15	0.14	0.12	0.11	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.06
4.2	1.04	0.53	0.36	0.28	0.23	0.19	0.17	0.15	0.14	0.12	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07
4.3	1.04	0.53	0.36	0.28	0.23	0.19	0.17	0.15	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07
4.4	1.04	0.53	0.36	0.28	0.23	0.19	0.17	0.15	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07
4.5	1.05	0.53	0.36	0.28	0.23	0.19	0.17	0.15	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07
4.6	1.05	0.53	0.36	0.28	0.23	0.19	0.17	0.15	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07
4.7	1.05	0.54	0.37	0.28	0.23	0.20	0.17	0.15	0.14	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07
4.8	1.05	0.54	0.37	0.28	0.23	0.20	0.17	0.15	0.14	0.13	0.12	0.11	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07
4.9	1.05	0.54	0.37	0.28	0.23	0.20	0.17	0.15	0.14	0.13	0.12	0.11	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07
5.0	1.05	0.54	0.37	0.28	0.23	0.20	0.17	0.15	0.14	0.13	0.12	0.11	0.11	0.10	0.10	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.07	0.07
5.1	1.05	0.54	0.37	0.28	0.23	0.20	0.17	0.16	0.14	0.13	0.12	0.11	0.11	0.10	0.10	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.07	0.07
5.2	1.05	0.54	0.37	0.28	0.23	0.20	0.17	0.16	0.14	0.13	0.12	0.11	0												

ANNUITY FACTORS

[illegible]

ANNUITY FACTORS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
7.6	1.08	0.56	0.39	0.30	0.25	0.21	0.19	0.17	0.16	0.15	0.14	0.13	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09
7.7	1.08	0.56	0.39	0.30	0.25	0.21	0.19	0.17	0.16	0.15	0.14	0.13	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09
7.8	1.08	0.56	0.39	0.30	0.25	0.22	0.19	0.17	0.16	0.15	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.09	0.09	0.09
7.9	1.08	0.56	0.39	0.30	0.25	0.22	0.19	0.17	0.16	0.15	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.09	0.09
8.0	1.08	0.56	0.39	0.30	0.25	0.22	0.19	0.17	0.16	0.15	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.09	0.09
8.1	1.08	0.56	0.39	0.30	0.25	0.22	0.19	0.17	0.16	0.15	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.09
8.2	1.08	0.56	0.39	0.30	0.25	0.22	0.19	0.18	0.16	0.15	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10
8.3	1.08	0.56	0.39	0.30	0.25	0.22	0.19	0.18	0.16	0.15	0.14	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10
8.4	1.08	0.56	0.39	0.30	0.25	0.22	0.19	0.18	0.16	0.15	0.14	0.14	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10
8.5	1.09	0.56	0.39	0.31	0.25	0.22	0.20	0.18	0.16	0.15	0.14	0.14	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
8.6	1.09	0.57	0.39	0.31	0.25	0.22	0.20	0.18	0.16	0.15	0.14	0.14	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
8.7	1.09	0.57	0.39	0.31	0.26	0.22	0.20	0.18	0.16	0.15	0.14	0.14	0.13	0.13	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10
8.8	1.09	0.57	0.39	0.31	0.26	0.22	0.20	0.18	0.17	0.15	0.15	0.14	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10
8.9	1.09	0.57	0.39	0.31	0.26	0.22	0.20	0.18	0.17	0.16	0.15	0.14	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10
9.0	1.09	0.57	0.40	0.31	0.26	0.22	0.20	0.18	0.17	0.16	0.15	0.14	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10
9.1	1.09	0.57	0.40	0.31	0.26	0.22	0.20	0.18	0.17	0.16	0.15	0.14	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10
9.2	1.09	0.57	0.40	0.31	0.26	0.22	0.20	0.18	0.17	0.16	0.15	0.14	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10
9.3	1.09	0.57	0.40	0.31	0.26	0.22	0.20	0.18	0.17	0.16	0.15	0.14	0.14	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.10
9.4	1.09	0.57	0.40	0.31	0.26	0.23	0.20	0.18	0.17	0.16	0.15	0.14	0.14	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11
9.5	1.10	0.57	0.40	0.31	0.26	0.23	0.20	0.18	0.17	0.16	0.15	0.14	0.14	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11
9.6	1.10	0.57	0.40	0.31	0.26	0.23	0.20	0.18	0.17	0.16	0.15	0.14	0.14	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11
9.7	1.10	0.57	0.40	0.31	0.26	0.23	0.20	0.19	0.17	0.16	0.15	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11
9.8	1.10	0.57	0.40	0.31	0.26	0.23	0.20	0.19	0.17	0.16	0.15	0.15	0.14	0.13	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11
9.9	1.10	0.58	0.40	0.31	0.26	0.23	0.20	0.19	0.17	0.16	0.15	0.15	0.14	0.14	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11
10.0	1.10	0.58	0.40	0.32	0.26	0.23	0.21	0.19	0.17	0.16	0.15	0.15	0.14	0.14	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11
10.1	1.10	0.58	0.40	0.32	0.26	0.23	0.21	0.19	0.17	0.16	0.15	0.15	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11
10.2	1.10	0.58	0.40	0.32	0.27	0.23	0.21	0.19	0.18	0.16	0.16	0.15	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11
10.3	1.10	0.58	0.40	0.32	0.27	0.23	0.21	0.19	0.18	0.16	0.16	0.15	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11
10.4	1.10	0.58	0.40	0.32	0.27	0.23	0.21	0.19	0.18	0.17	0.16	0.15	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11
10.5	1.11	0.58	0.41	0.32	0.27	0.23	0.21	0.19	0.18	0.17	0.16	0.15	0.14	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.11
10.6	1.11	0.58	0.41	0.32	0.27	0.23	0.21	0.19	0.18	0.17	0.16	0.15	0.15	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12
10.7	1.11	0.58	0.41	0.32	0.27	0.23	0.21	0.19	0.18	0.17	0.16	0.15	0.15	0.14	0.14	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12
10.8	1.11	0.58	0.41	0.32	0.27	0.24	0.21	0.19	0.18	0.17	0.16	0.15	0.15	0.14	0.14	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12
10.9	1.11	0.58	0.41	0.32	0.27	0.24	0.21	0.19	0.18	0.17	0.16	0.15	0.15	0.14	0.14	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12
11.0	1.11	0.58	0.41	0.32	0.27	0.24	0.21	0.19	0.18	0.17	0.16	0.15	0.15	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12
11.1	1.11	0.58	0.41	0.32	0.27	0.24	0.21	0.20	0.18	0.17	0.16	0.15	0.15	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12
11.2	1.11	0.59	0.41	0.32	0.27	0.24	0.21	0.20	0.18	0.17	0.16	0.16	0.15	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12
11.3	1.11	0.59	0.41	0.32	0.27	0.24	0.21	0.20	0.18	0.17	0.16	0.16	0.15	0.15	0.14	0.14	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12
11.4	1.11	0.59	0.41	0.33	0.27	0.24	0.21	0.20	0.18	0.17	0.16	0.16	0.15	0.15	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12
11.5	1.12	0.59	0.41	0.33	0.27	0.24	0.22	0.20	0.18	0.17	0.16	0.16	0.15	0.15	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12
11.6	1.12	0.59	0.41	0.33	0.27	0.24	0.22	0.20	0.18	0.17	0.17	0.16	0.15	0.15	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12
11.7	1.12	0.59	0.41	0.33	0.28	0.24	0.22	0.20	0.19	0.17	0.17	0.16	0.15	0.15	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.12
11.8	1.12	0.59	0.41	0.33	0.28	0.24	0.22	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13
11.9	1.12	0.59	0.42	0.33	0.28	0.24	0.22	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13
12.0	1.12	0.59	0.42	0.33	0.28	0.24	0.22	0.20	0.19	0.18	0.17	0.16	0.16	0.15	0.15	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13
12.1	1.12	0.59	0.42	0.33	0.28	0.24	0.22	0.20	0.19	0.18	0.17	0.16	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13
12.2	1.12	0.59	0.42	0.33	0.28	0.24	0.22	0.20	0.19	0.18	0.17	0.16	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13
12.3	1.12	0.59	0.42	0.33	0.28	0.25	0.22	0.20	0.19	0.18	0.17	0.16	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13
12.4	1.12	0.59	0.42	0.33	0.28	0.25	0.22	0.20	0.19	0.18	0.17	0.16	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13
12.5	1.13	0.60	0.42	0.33	0.28	0.25	0.22	0.20	0.19	0.18	0.17	0.17	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.13
12.6	1.13	0.60	0.42	0.33	0.28	0.25	0.22	0.21	0.19	0.18	0.17	0.17	0.16	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.13	0.13	0.13
12.7	1.13	0.60	0.42	0.33	0.28	0.25	0.22	0.21	0.19																

ANNUITY FACTORS

[illegible]

ABBREVIATED WORKSHEET #1

If you would like to have us complete the worksheets for you or would like our comments on your results, please complete Column (B) of the accompanying abbreviated version of Worksheet #1 and the section that follows, and mail to us at our letterhead address.

	(A)	(B)
	<u>Financial Asset Category</u>	<u>Expected Value at Retirement or Current Value, if Already Retired</u>
Name	(1) Cash & Equivalents	\$ _____
	(3) Direct Investments:	
	(4) Government Bonds	_____
	(5) Corporate Bonds	_____
	(6) Common Stocks	_____
	(7) Convertible Bonds	_____
	(8) Unit Trusts:	
Street	(9) Municipal	_____
	(10) Corporate	_____
	(11) Investment Companies	
	(12) Government Bonds	_____
	(13) Corporate Bonds	_____
City or Town	(14) U. S. Stocks	_____
	(15) Convertible Bonds	_____
	(16) Balanced Funds	_____
	(17) Foreign Bonds	_____
State & Zip	(18) Foreign Stocks	_____
	(19) Deferred Annuities:	
	(20) Fixed Rate	_____
	(21) Variable Subaccounts	
Your Date of Birth	(22) Money Market	_____
	(23) Government Bonds	_____
	(24) Corporate Bonds	_____
	(25) U. S. Stocks	_____
Spouse's Date of Birth, if applicable	(26) Convertible Bonds	_____
	(27) Balanced Funds	_____
	(28) Foreign Bonds	_____
	(29) Foreign Stocks	_____
Expected Retirement Date, if not retired	(30) Total	\$ _____
		Total Column (B)