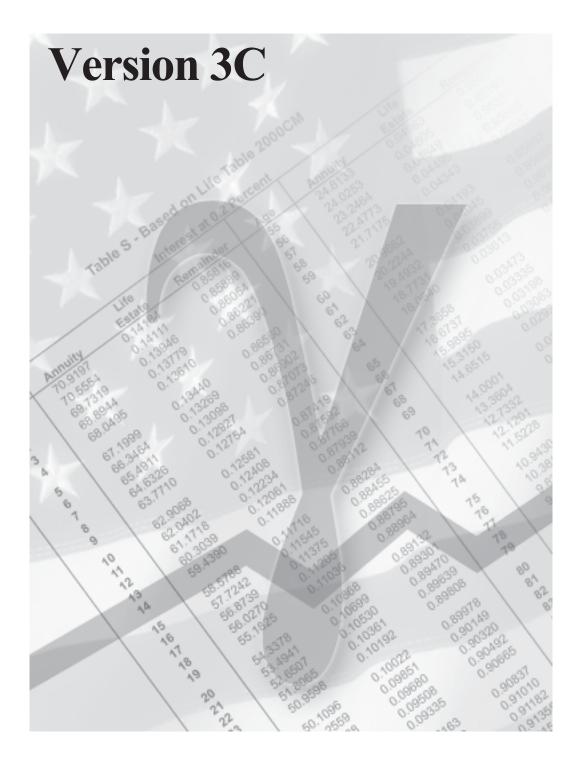# ACTUARIAL VALUATIONS

Examples for
Computing
Depreciation
Adjustment Factors

For Income Tax
Purposes Only

Version 3C

IRS

ACTUARIAL VALUATIONS

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TABLE OF CONTENTS

USE OF TABLES

This publication illustrates the method for using actuarial factors for certain income tax valuations of future interests. This publication *does not contain* the tables of actuarial factors used in the example. The actuarial tables cited in the examples below can be found on the IRS website at the following address:

Website: http://www.irs.gov/retirement/article/0,,id=206601,00.html

The factors and tables associated with this publication involving life contingencies are derived from the values of l_x taken from the Life Table for the Total Population appearing as Table 1, in U.S. Decennial Life Tables for 1999-2001" published by the U.S. Department of Health and Human Services, Public Health Service, National Center for Health Statistics. Table 1 appears in the associated set of tables labeled as Table 2000CM.

Associated Table On The Web

In Table C, the primary actuarial table on the IRS website associated with this publication and the following example, the factors are based on interest rates ranging from 0.2 percent to 20.0 percent in intervals of 0.2 percent. The wide range of rates is shown pursuant to Section 7520 of the Internal Revenue Code, which requires the use of an interest rate of 120 percent of the annual mid-term applicable federal rate for the month in which the valuation date falls. All of the factors associated with this publication reflect annual compounding of interest.

The factors in Table C are used for making adjustments to the standard remainder factor for valuing gifts of depreciable property. Under section 1.170A-12 of the Federal Income Tax Regulations, such an adjustment must be made for a charitable gift of a remainder interest in a depreciable property in order to take a charitable deduction for the gift.

HISTORICAL SYNOPSIS OF TABLES

Period	Table	Interest Rate	Publications
1-1-1951 to 12-31-1970	US1938	3.5%	11
1-1-1971 to 11-30-1983	Table LN	6%	723, 723A, 723B
12-1-1983 to 4-30-1989	Table CM	10%	723C, 723D, 723E
5-1-1989 to 4-30-1999*	80CNSMT	§ 7520 rates	1457, 1458, 1459 (5-1989 version)
5-1-1999 to 4-30-2009	90CM	§ 7520 rates	1457, 1458, 1459 (7-1999 version)
5-1-2009 --	2000CM	§ 7520 rates	1457, 1458, 1459 (5-2009 version)

* On October 22, 1989, section 7520 was enacted which prescribed the use of an interest rate equal to 120 percent of the midterm applicable federal rate, rounded to the nearest two tenths of a percent for actuarial computations.

EXAMPLE

A person aged 60 donates to State University a remainder interest in her personal residence consisting of a house and land, reserving a life estate interest for herself. At the time of the gift the land has a value of $50,000 and the house (i.e the improvements) has a value of $200,000 with an estimated useful life of 45 years, and the salvage value of the improvements is considered to be $10,000. The donor elects to use the interest rate for the month in which the gift takes place, which is 4.6 percent. Using Table C(4.6) on page 23, under the Remainder Factor column and across from age 60 is the factor 0.41890. Thus the present worth of the remainder interest in $1.00 payable at the death of a person aged 60 is $0.41890. The present value of the nondepreciable property is $60,000 ($50,000 for land plus $10,000 salvage value) times 0.41890 or $25,134.00. The factor for valuing the remainder interest in the depreciable portion of the property is computed as follows:

> (1) R-factor for initial age of tenant:
>   Table C (4.6), age 60   =   42414.02
> minus (2) R-factor for terminal age of tenant:
>   Table C (4.6), age 105 =   1.818015
>   -------------------
> (3) Difference   =   42412.20
>
> (4) D-factor for initial age of tenant:
>   Table C (4.6), age 60   =   5896.282
> times (5) Useful lifetime of house   =   45
>   ---------------------
> (6) Product   =   265332.69
>
>   42412.20
> (7) line (3) above divided by line (6) above   = ----------------
>   265332.69
>
> equals (8) Depreciation Adjustment Factor   = .15985
>
> (9) Remainder Factor, Table C (4.6), age 60   = .41890
>
> (10) Line (9) minus line (8):
>   Depreciation Remainder Factor   = .25905

The factor for the present worth of the remainder interest in the depreciable portion of the property is 0.25905. The present value of the remainder interest in the depreciable part of the gift is $190,000 ($200,000 house value minus $10,000 salvage value) times 0.25905 or $49,219.50.

The present value of the remainder interest in the entire property is $25,134.00 plus $49,219.50 or $74,353.50.

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