ACTUARIAL VALUATIONS

VERSION 4C

Examples for computing depreciation adjustment factors

For income tax purposes only

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USE OF EXAMPLES AND TABLES

This publication illustrates the method for using actuarial factors for certain income tax valuations of future interests. This example uses factors from actuarial tables associated with this publication. The actuarial tables are located at

https://www.irs.gov/retirement-plans/actuarial-tables

The factors and tables associated with this publication involving life contingencies are derived from the values of lx taken from the Life Table for the Total Population appearing as Table 1, in U.S. Decennial Life Tables for 2009-2011 published by the U.S. Department of Health and Human Services, Public Health Service, National Center for Health Statistics. Values from Table 1 appear in the associated set of tables labeled as Table 2010CM. However, in Table 2010CM the values of lx are stated to seven digits.

ASSOCIATED TABLES ON THE WEB

In Table C, the primary actuarial table on IRS.gov associated with this publication and the following example, the factors are based on interest rates ranging from 0.2% to 20.0% in intervals of 0.2%. The wide range of rates is shown pursuant to Internal Revenue Code (IRC) Section 7520, which requires the use of an interest rate of 120% of the annual mid-term applicable federal rate for the month in which the valuation date falls. This rate is referred to in this publication as the "Section 7520 rate,", or simply the "7520 rate." All 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 Federal Income Tax Regulations Section 1.170A-12, this adjustment must be made for a charitable gift of a remainder interest in a depreciable property to take a charitable deduction for the gift. As an alternative to factors from Table C, actuarial factors may be computed with software from the underlying actuarial formulas applicable to ordinary and depreciable remainder interests, including the formula shown in the above regulations.

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 release)
5-1-1999 to 4-30-2009	90CM	7520 rates	1457, 1458, 1459 (7-1999 release)
5-1-2009 to 5-31-2023**	2000CM	7520 rates	1457, 1458, 1459 (5-2009 release)
6-1-2023** to	2010CM	7520 rates	1457, 1458, 1459 (6-2023 release)

*On October 22, 1988, IRC Section 7520 was enacted. It requires the use of an interest rate equal to 120% of the midterm applicable federal rate, rounded to the nearest 0.2% for actuarial computations.

**Transition period: For valuation dates from May 1, 2019, through June 1, 2023, you may rely on either the actuarial tables based on Table 2000CM, or based on Table 2010CM. However, you must be consistent in using the same set of tables to value each interest (income, remainder, partial, etc.) in the same property and with respect to all transfers occurring on the same valuation date.

EXAMPLE

A person age 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 (the improvements) has a value of $200,000 with an estimated useful life of 28 years, and the residual value (or salvage value) of the improvements after the useful life is $10,000. The donor elects to use the interest rate for the month in which the gift takes place, which is 3.6%. Using Table C(3.6), under the Remainder Factor column and across from age 60 is the factor 0.47113. Thus, the present worth of the remainder interest in $1.00 payable at the death of a person age 60 is $0.47113. The present value of the nondepreciable property is $60,000 ($50,000 for land plus $10,000 salvage value) times 0.47113 or $28,267.80. The factor for valuing the remainder interest in the depreciable portion of the property is computed as:

(1) R-Factor for Initial Age of Tenant: Table C (3.6), age 60 = 97,561.10

minus (2) R-Factor for Terminal Age of Tenant: Table C (3.6), age 88 = 5,462.008

(3) Difference = 92,099.09

(4) D-Factor for Initial Age of Tenant: Table C (3.6), age 60 = 10,621.15

times (5) Useful Lifetime of House = X 28

(6) Product = 297,392.20

(7) line (3) above *divided* by line (6) above = $\dfrac{92,099.09}{297,392.20}$

equals (8) Depreciation Adjustment Factor = 0.30969

(9) Remainder Factor, Table C (3.6), age 60 = 0.47113

(10) Line (9) minus line (8): Depreciation Remainder Factor = 0.16144

The factor for the present worth of the remainder interest in the depreciable portion of the property is 0.16144. 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 0.16144 or $30,673.60.

The present value of the remainder interest in the entire property is $28,267.80 plus $30,673.60 or $58,941.40.

As an alternative to using the method above, it is also acceptable to compute the remainder factor directly from the underlying actuarial formula in the regulation, provided that the resulting remainder factor is expressed to at least 5 decimal places, and that this method is applied consistently in valuing all interests in the same property.